**IN THE HIGH COURT OF THE REPUBLIC OF SINGAPORE**

**[2018] SGHC 167**

Suit No 747 of 2016

Between

**NANOFILM TECHNOLOGIES INTERNATIONAL PTE LTD**

… *Plaintiff*

And

**(1) SEMIVAC INTERNATIONAL PTE LTD**
**(2) XU YIBO**
**(3) HU LANG**

… *Defendants*

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# JUDGMENT

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[Copyright] — [Infringement]

[Copyright] — [Remedies]

[Employment Law] — [Contract of service] — [Breach]

[Tort] — [Confidence]

[Tort] — [Inducement of breach of contract]

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# Nanofilm Technologies International Pte Ltd
# v
# Semivac International Pte Ltd and others

**[2018] SGHC 167**

High Court — Suit No 747 of 2016
George Wei J
23–26 October 2017; 11 December 2017

26 July 2018 Judgment reserved.

**George Wei J:**

## Introduction

1 This is an action brought by the plaintiff against two former employees and the company set up by the former employees. The dispute concerns specialised coating technology. The plaintiff makes four claims.[1] First, that the 1st defendant infringed copyrights belonging to the plaintiff. Second, that the 2nd defendant breached his employment contract with the plaintiff. Third, that the 1st and 2nd defendants breached their duty of confidence owed to the plaintiff. Last, that the 3rd defendant induced the 2nd defendant to breach his contract with the plaintiff.

2 For convenience, the judgment that follows is structured as such:

(a) The background

[1] Plaintiff's Closing Submissions, p 15, Part C.

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(i) The parties

(ii) An overview of the technology

(iii) The genesis of the dispute

(iv) The witnesses and procedural issues

(b) The claim against the 1st defendant for copyright infringement

(i) The Semivac Slides

(ii) The Semivac Drawings

(A) Infringement and the plaintiff's pre-existing technical drawings

(I) Do the Semivac Drawings reproduce a substantial part of the plaintiff's pre-existing technical drawings?

(II) The useful article defence and the plaintiff's pre-existing technical drawings

(B) Infringement and the Semivac Drawings

(I) Were the copyrights in the Semivac Drawings infringed?

(II) The useful article defence and the Semivac Drawings

(c) The claim against the 2nd defendant for breach of contract

(d) The claim against the 1st and 2nd defendants for breach of confidence

(e) The claim against the 3rd defendant for inducing breach of contract



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(f) Conclusion on liability

(g) Remedies and relief

(i) Against the 1st defendant for copyright infringement

(A) The Semivac Slides

(B) The Semivac Drawings

(ii) Against the 1st and 2nd defendants for breach of confidence

(iii) Against the 2nd defendant for breach of contract

(iv) Against the 3rd defendant for inducing breach of contract.

## The background

### *The parties*

3 The plaintiff, Nanofilm Technologies International Pte Ltd, is a Singapore company incorporated in May 1999.[2] It is in the business of manufacturing and providing Filtered Cathodic Vacuum Arc ("FCVA") technology products and services.[3] The plaintiff's chief executive officer and founder is Dr Shi Xu,[4] and its senior vice-president is Dr Wei Hao.[5]

4 The 1st defendant, Semivac International Pte Ltd, is also a Singapore company, and is in the business of providing products and services in the

2 AEIC of Dr Shi Xu, [1].

3 Statement of Claim (Amendment No 2), [1].

4 AEIC of Dr Shi Xu, [1].

5 AEIC of Dr Wei Hao, [1].



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vacuum industry.[6] The 1st defendant specialises in providing pumps, spare parts, and installation and maintenance services.[7]

5 The 2nd defendant, Xu Yibo, was employed by the plaintiff on 6 April 2000 as an applications engineer.[8] He was then promoted to manager – production mechanical on 1 January 2007.[9] The 2nd defendant's duties in this role included designing components using software.[10] On 1 August 2014, the 2nd defendant was re-designated as – or in harsher terms, demoted to – senior engineer – mechanical design.[11] His employment with the plaintiff was eventually terminated on 13 January 2016.[12] Whilst in the employ of the plaintiff, the 2nd defendant became a director of the 1st defendant on 6 October 2008, and continued as such until 11 January 2016.[13]

6 The 3rd defendant, Hu Lang, was employed by the plaintiff from November 1999 to 4 January 2008 as a senior process engineer.[14] He was subsequently promoted to senior manager of after-sales technical support.[15] The 3rd defendant then left the plaintiff to set up the 1st defendant[16] and has been its managing director since 6 October 2008.[17]

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6 Statement of Claim (Amendment No 2), [2].

7 Statement of Claim (Amendment No 2), [2].

8 Statement of Claim (Amendment No 2), [3].

9 Statement of Claim (Amendment No 2), [3].

10 Statement of Claim (Amendment No 2), [3].

11 Statement of Claim (Amendment No 2), [3].

12 Statement of Claim (Amendment No 2), [3].

13 Statement of Claim (Amendment No 2), [3].

14 AEIC of Hu Lang, [4].

15 AEIC of Hu Lang, [4].

16 AEIC of Hu Lang, [4].



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***An overview of the technology***

7 Whilst this is not a case of patent infringement, an overview of the technology will be helpful to shed light on the issues that have arisen. The following overview is based on the evidence and submissions put before the court.

8 FCVA technology, put simply, is a method of coating materials or products with a thin film of metallic, ceramic or composite substances.[18] For example, the technology can be used to coat articles with a thin film of diamond-like carbon particles, known as tetrahedral amorphous carbon, to reduce friction and prolong the life of the article.[19] The general technology has been known for quite a long time and appears to date back to technology developed in the Soviet Union before the 1980s.[20] Cathodic vacuum arc technology, when first developed, apparently did not incorporate a filter.[21] Thereafter, filters of various shapes were used.[22] Eventually the plaintiff developed its version of FCVA technology which uses a "double bend filter", together with some other improvements, the details of which are unnecessary for present purposes.[23]

9 FCVA technology comprises hardware and software. For the purposes of this case, the hardware is essentially a "machine" made from various components such as a power supply, circuit boards, various types of valves,

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17 Statement of Claim (Amendment No 2), [4].

18 AEIC of Dr Shi Xu, [4] and Agreed Bundle of Documents, p 752.

19 Plaintiff's Opening Statement, [1].

20 AEIC of Dr Shi Xu, [5]

21 Certified Transcript for 23 October 2017, p 65, lines 16-17.

22 Agreed Bundle of Documents, p 422.

23 AEIC of Dr Shi Xu, [7].



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vacuum pumps, filters amongst other things.[24] The software used in the control panel is concerned with the carrying out of the various processes involved in FCVA coating.[25]

10 Whilst the plaintiff asserts that it has obtained numerous patents over its FCVA technology,[26] I note that the plaintiff does not in this case rely on any patents or registered design rights.[27] Indeed, it is not clear whether there are any relevant patents which are still in force over FCVA technology.[28]

11 What is clear is that some, possibly many, hardware components of the FCVA machine are available from various original equipment manufacturers ("OEM").[29] In a sense, some of the components are generic components that could be used in a variety of different types of machines serving the same, similar or even different purposes. On the other hand, some components might be developed "in-house" by the plaintiff, such as a valve with a particular shape and set of dimensions: the point being that advantages may arise from the particular shape.[30]

12 Whilst the evidence could have been clearer, it appears that although some parts or components of the plaintiff's FCVA machine are designed in-house for use in a generic FCVA machine, some components may be designed

24 Agreed Bundle of Documents, p 448, 461 and Certified Transcript for 25 October 2017, p 30 lines 10-22.

25 Agreed Bundle of Documents, p 461.

26 AEIC of Dr Shi Xu, [11].

27 Certified Transcript for 23 October 2017, p 7, lines 21-24.

28 Certified Transcript for 23 October 2017, p 8, lines 21-22.

29 Certified Transcript for 23 October 2017, p 59, line 25 – p 60, line 3, and AEIC of Dr Shi Xu, [55].

30 Certified Transcript for 23 October 2017, p 60, lines 5-8 and AEIC of Dr Shi Xu, [55].



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in accordance with the needs of particular customers.[31] FCVA machines can be made in different sizes and might be adjusted or tailored, so to speak, for particular types of coating applications.[32]

13 In any event, it appears that some component parts would wear out or require servicing from time to time.[33] If the component had to be replaced, it stands to reason that the plaintiff would have to either (i) use a component from stock; (ii) order the relevant component from a third party manufacturer; or (iii) fabricate the component part itself.

14 For completeness, I note Dr Wei Hao's evidence that the plaintiff's business comprises manufacturing and servicing their own machines.[34] Further, whilst the plaintiff's main business is in FCVA machines/technology, Dr Wei Hao explains that they also make and supply more traditional and cheaper coating machines.[35] Indeed, the 2nd defendant in cross-examination agreed that the plaintiff sold different types of vacuum coating machines, including machines using something called a "sputter source", which appears to involve a different process from FCVA machines.[36]

### *The genesis of the dispute*

15 The 3rd defendant had been working for the plaintiff for almost ten years at the time of his departure in early January 2008.[37] It is not disputed that, at the

31 Certified Transcript for 23 October 2017, p 64, lines 14-16.

32 Certified Transcript for 23 October 2017, p 49, lines 22-25 and Agreed Bundle of Documents, p 752.

33 Certified Transcript for 23 October 2017, p 92, lines 19-22.

34 Certified Transcript for 23 October 2017, p 49, lines 5-18 and p 51, lines 5-8.

35 Certified Transcript for 23 October 2017, p 50, lines 7-11.

36 Certified Transcript for 25 October 2017, p 28, lines 4-10.



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time of his departure, the 3rd defendant and the 2nd defendant had been colleagues for about eight years.[38]

16 After the 3rd defendant left in January 2008, the 2nd defendant remained a full-time employee of the plaintiff.[39] The 2nd defendant, together with the 3rd defendant, then "set up" the 1st defendant in 2008.[40] That said, I note that there is a dispute as to whether the 2nd and 3rd defendant jointly decided to set up the 1st defendant or whether the 3rd defendant persuaded the 2nd defendant to join him shortly after the 1st defendant was incorporated. This will be examined later. In any case, it is not disputed that the 2nd defendant became a director of the 1st defendant at or about the same time the 3rd defendant became the managing director of the 1st defendant.[41]

17 The plaintiff's basic case is that the 2nd defendant did not obtain the plaintiff's consent to become a director of the 1st defendant or to perform any work for the 1st defendant.[42]

18 The plaintiff alleges that, whilst in the employment of the plaintiff, the 2nd defendant created numerous technical drawings for the 1st defendant.[43] The technical drawings were created using the laptop and software (computer-aided design program ("CAD")) provided by the plaintiff.[44] The laptop had been

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37 Statement of Claim (Amendment No 2), [4].

38 Statement of Claim (Amendment No 2), [3] and [4] and Defence (Amendment No 3), [3].

39 Statement of Claim (Amendment No 2), [3].

40 AEIC of Xu Yibo, [9].

41 AEIC of Hu Lang, [10].

42 Plaintiff's Closing Submissions, p 20.

43 Statement of Claim (Amendment No 2), [7].



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provided to the 2nd defendant because there was a period when he was required to travel overseas.[45] The plaintiff avers that some of the drawings were created during the plaintiff's official working hours.[46] Other drawings may have been created outside of office hours, using the plaintiff's laptop.[47]

19 I note that these technical drawings (the "Semivac Drawings"), which bore the 1st defendant's name, were recovered from the 2nd defendant's laptop with the assistance of Nexia TS Risk Advisory Pte Ltd ("Nexia"), a computer forensics company.[48] Some 48 Semivac Drawings were recovered by Nexia.[49]

20 Nexia's report concluded that the 2nd defendant had in his possession technical drawings of the plaintiff (not drawn by the 2nd defendant), which were then changed/modified for the first defendant's use.[50] The plaintiff's case is that, aside from these 48 Semivac Drawings, there were many more technical drawings which it was unable to recover from the laptop.[51] This is indeed likely, as the 3rd defendant under cross-examination agreed that the 1st defendant made more than just 48 Semivac Drawings.[52]

21 The plaintiff's case is that most of the Semivac Drawings were either unauthorised copies or adaptations of technical drawings belonging to the

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44 Defendants' Closing Submissions, [43].

45 Certified Transcript for 23 October 2017, p 113, lines 3-6.

46 Plaintiff's Closing Submissions, p 25.

47 Plaintiff's Closing Submissions, p 25.

48 AEIC of Dr Shi Xu, [46].

49 Plaintiff's Opening Statement, [6].

50 Agreed Bundle of Documents, 109-110.

51 Plaintiff's Opening Statement, [6].

52 Certified Transcript for 26 October 2017, p 126, lines 7-10.



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plaintiff.[53] The defendants' case essentially is that the majority of the Semivac Drawings were produced by the 2nd defendant without reference to any drawings in which the plaintiff can claim copyright.[54] That said, I note the 2nd defendant admits that four of the Semivac Drawings were created using the plaintiff's existing files;[55] *ie*, the 2nd defendant modified the plaintiff's files to create four of the Semivac Drawings.

22 In addition, the plaintiff's case is that sometime between 2002 and 2007, the 1st defendant published a set of presentation slides (the "Semivac Slides"), which contained certain technical drawings, diagrams, photographs, and graphs.[56] The presentation slides were created for the purpose of showcasing a coating system referred to as Direct Cathodic Vacuum Arc ("DCVA") system.[57] The technology involved in the FCVA and DCVA systems are said to be similar.[58] Indeed, the plaintiff's case is that the DCVA system is, to all intents and purposes, identical to the FCVA system.[59]

23 Whilst the plaintiff's case could have been clearer, it appears that the plaintiff basically complains of:[60]

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53 AEIC of Dr Shi Xu, [47].

54 Defendants' Closing Submissions, [46].

55 Defendants' Closing Submissions, [45].

56 Statement of Claim (Amendment No 2), [6] and [13].

57 Plaintiff's Closing Submissions, [31].

58 Certified Transcript for 26 October 2017, p 128, lines 2-7.

59 Plaintiff's Opening Statement, [2].

60 Statement of Claim (Amendment No 2), [14].



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(a) unlawful competition by the defendants in the business of servicing and maintenance of FCVA machines made and supplied by the plaintiff; and

(b) unlawful competition by the defendants in the manufacture for sale of complete FCVA or DCVA machines with component parts, *etc*, modelled on those designed by the plaintiff.

24 By unlawful competition what is meant are the claims for copyright infringement, breach of contract, breach of confidence and inducing breach of contract. There is no claim for unfair competition or passing off. There is also no claim against the defendants for unauthorised copying of computer programs associated with the plaintiff's FCVA technology.

25 The 2nd defendant asserts that although he was a director of the 1st defendant, he did not in fact do much work for the 1st defendant and that only a few design drawings were made by him for the 1st defendant.[61] The 3rd defendant goes on to deny that he had induced the 2nd defendant to become a director and to do work for the 1st defendant, in breach of the 2nd defendant's contractual duties to the plaintiff.[62] In particular, the 3rd defendant denies that he was aware or ought to have known that there were express contractual restrictions imposed on the 2nd defendant.[63]

26 The defendants also generally take the position that, in any case, the 1st defendant was not a competitor as such of the plaintiff.[64] It appears that by this

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61 Certified Transcript for 25 October 2017, p 88, lines 2-7.

62 AEIC of Hu Lang, [18].

63 AEIC of Hu Lang, [18].

64 Defence (Amendment No 3), [2].



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what is meant is that:

(a) the plaintiff is not in the business of servicing and maintaining machines (aside from their own);[65] and

(b) the 1st defendant was not in any case involved in manufacturing FCVA machines.[66]

Instead, the 1st defendant was interested in DCVA technology, a different technology used for producing thin film coatings on industrial products.[67] That said, the 3rd defendant admitted at trial that FCVA and DCVA technologies, even if not identical, are similar.[68] Indeed, the evidence suggests that some components needed in FCVA machines will also be needed in DCVA machines.[69]

27 One other point worth underscoring at the outset is that there is no direct evidence from any customer of an actual purchase of a DCVA or FCVA machine from the 1st defendant.[70] Indeed, there is no direct evidence that the 1st defendant even has a DCVA machine in Singapore.

28 Against this, the plaintiff rightly points out that the Semivac Slides referred to earlier includes a photograph of a DCVA Batch Vacuum Coating System machine.[71] The photograph naturally suggests that the 1st defendant had

65 AEIC of Hu Lang, [16].

66 AEIC of Hu Lang, [8].

67 Certified Transcript for 26 October 2017, p 6, lines 5-12.

68 Certified Transcript for 26 October 2017, p 128, lines 2-7.

69 Certified Transcript for 23 October 2017, p 85, lines 3-11.

70 Defendants' Closing Submission, [62].

71 Agreed Bundle of Documents, p 8.



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indeed built at least one DCVA machine. The 3rd defendant's evidence was that he prepared the Semivac Slides at the request of one "Mr Ho", who is said to be a director of Drachs Technology (S) Pte Ltd.[72] According to the 3rd defendant, Mr Ho wanted a technical briefing on coating technology.[73] The 3rd defendant asserts that he does not know what Mr Ho did with the slides and denies using them to make a presentation to a company called Seagate, in Thailand, for the 1st defendant.[74]

29 Unfortunately, there is no independent evidence to support the 3rd defendant's assertions. Mr Ho was not asked to give evidence. Further, when cross-examined, the 3rd defendant's evidence was that the photograph of the DCVA Batch Vacuum Coating System machine was found on the internet and simply taken and used in the Semivac Slides.[75] When questioned further, the 3rd defendant responded that he found the photograph by conducting an internet search using the name of a Chinese company, Guandong Naisense Coating Technology Ltd ("Naisense"), as the search term.[76] With respect, this is odd, especially as the 3rd defendant denied that he was a director of Naisense several times.[77] Why would he then use the name of that company as the search term? I note that the 3rd defendant ultimately changed his stance, after he was shown records indicating that he was indeed a director of Naisense.[78] The defendants in closing submissions, after noting that Naisense is a joint venture company

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72 AEIC of Hu Lang, [24].

73 AEIC of Hu Lang, [24].

74 AEIC of Hu Lang, [24].

75 Certified Transcript for 26 October 2017, p 48, line 10-23.

76 Certified Transcript for 26 October 2017, p 49, line 16 – p 50, line 4.

77 Certified Transcript for 26 October 2017, p 54, line 10-22.

78 Certified Transcript for 26 October 2017, p 54, line 17 – p 61, line 17.



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between a Chinese company and a Singapore company called Topbond Technology International Pte Ltd ("Topbond"), merely state that "the 3rd Defendant appears to have been a director for a period of 3 years from 2012 which he was not aware of."[79] The 3rd defendant is both a director and shareholder of Topbond.[80]

30 Overall, I find the 3rd defendant's evidence on the Semivac Slides and his relationship to Naisense most unsatisfactory. Even though there is no evidence on how many DCVA machines the 1st defendant or 3rd defendant may be connected to, through Naisense or any other company, the point is that the 3rd defendant was most surely interested in producing DCVA machines and components. Indeed, the inference is strong: the 3rd defendant was knowingly concealing the link with Naisense.

***The witnesses and procedural issues***

31 Four witnesses testified for the plaintiff:[81]

(a) Tan Kah Leong: a computer forensics expert who examined the 2nd defendant's laptop;

(b) Lee Soo Cheng: the plaintiff's human resource manager who interviewed the 2nd defendant shortly before his dismissal;

(c) Dr Wei Hao: the head of the plaintiff's mechanical design team and the 3rd defendant's supervisor whilst the latter was employed by the plaintiff; and

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79 Defendants' Closing Submissions, [69].

80 Certified Transcript for 26 October 2017, p 56, lines 11-19.

81 Plaintiff's Opening Statement, [17].



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(d) Dr Shi Xu: the founder and chief executive officer of the plaintiff.

32 Two witnesses testified for the defendants:[82]

(a) Xu Yibo: the 2nd defendant; and

(b) Hu Lang: the 3rd defendant and chief executive officer of the 1st defendant.

33 The defendants' Defence (Amendment No 2) mainly consists of a series of denials and non-admissions, as well as a number of averments. Some of these have been referred to already. In brief, the core of the defence, as then pleaded, was as follows:

(a) The plaintiff and 1st defendant were not competitors.[83]

(b) The technical drawings found in the 2nd defendant's laptop (the Semivac Drawings), which form part of the plaintiff's case, were created by the 2nd defendant for the 1st defendant and were not made in the course of employment with the plaintiff. The copyright in these Semivac Drawings do not belong to the plaintiff.[84]

(c) The copyrights in the works embodied in the plaintiff's presentation slides and which were said to have been used without permission by the defendants to create their own presentation (the Semivac Slides) do not belong to the plaintiff.[85]

82 Plaintiff's Opening Statement, [18].

83 Defence (Amendment No 2), [2].

84 Defence (Amendment No 2), [5]-[6].

85 Defence (Amendment No 2), [6].



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(d) The 2nd defendant did not misuse any confidential information of the plaintiff in the course of creating the Semivac Drawings for the 1st defendant at the request of the 3rd defendant.[86]

34 In short, without going into details, the defence was a denial that the plaintiff owned the copyright in the relevant works as well as a denial that the defendants had misused any confidential information belonging to the plaintiff. There was no affirmative defence raised, whether based on the statutory provisions in the Copyright Act (Cap 63, 2006 Rev Ed) ("Copyright Act") or at common law (such as an implied right of repair).

35 During the course of the trial, Dr Wei Hao gave evidence for the plaintiff under cross-examination that more than 50 FCVA machines had been made and sold.[87] After hearing counsel in chambers, the defendants sought leave to amend the defence to add the useful article defence found in s 70 of the Copyright Act.[88] The relevance of the evidence that 50 machines were made to the useful article defence will be discussed later. Leave was granted after the plaintiff's counsel stated that there were no objections to the amendment.[89] Counsel for the plaintiff also stated that it would not be calling any witnesses or offering any further evidence in any case, and that it would not be seeking leave to amend their reply.[90] To complete the picture, I note that the defendants did not seek leave to recall the plaintiff's witnesses for cross-examination. Further, whilst the

86 Defence (Amendment No 2), [16].

87 Certified Transcript for 23 October 2017, p 84 line, 1-8.

88 Summons No 4890/2017.

89 Minute Sheet for Summons No 4890/2017.

90 Minute Sheet for Summons No 4890/2017.



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defendants addressed the useful article defence in closing submissions, I note that no submissions were made by the plaintiff.

## The claim against the 1st defendant for copyright infringement

### *The Semivac Slides*

36 As briefly touched on above, the plaintiff claims that the 1st defendant infringed its copyrights in 14 technical drawings, diagrams and/or photographs by reproducing them in the Semivac Slides.[91] For example, one diagram said to have been copied relates to a representation of FCVA Technology.[92] Another example is a photograph of a component part named "NTI-CS2007 Eugene", reproduced in the Semivac Slides.[93]

37 The plaintiff's case in respect of the Semivac Slides is that the 3rd defendant had access to the drawings, diagrams, photographs, *etc*, whilst he was an employee of the plaintiff, up to his resignation on 4 February 2008.[94] After he left the plaintiff, it appears that he retained copies of these works. Thereafter, sometime around February and April 2015, the 1st defendant made a presentation using the Semivac Slides to Seagate.[95] Seagate was a customer of the plaintiff.[96] After the presentation, it appears that a copy of the Semivac Slides was provided to the plaintiff.[97] It is not clear who provided the slides, but it seems likely that it was Seagate.[98]

91 Statement of Claim (Amendment No 2), [13].

92 Statement of Claim (Amendment No 2), Annex A, p i, first row.

93 Statement of Claim (Amendment No 2), Annex A, p iii, second row.

94 Statement of Claim (Amendment No 2), [13(i)]-[13(ii)].

95 Statement of Claim (Amendment No 2), [13(iii)].

96 Statement of Claim (Amendment No 2), [13(iii)].

97 Statement of Claim (Amendment No 2), [13(iii)].



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38 During the trial, the plaintiff made clear that it is no longer pursuing its claim over two of the 14 items.[99] Conversely, the plaintiff seeks to claim copyright over certain additional data reproduced in Dr Shi's affidavit of evidence-in-chief ("AEIC").[100] As the data listed in Dr Shi's AEIC is not part of the plaintiff's pleaded case,[101] I will not make a determination on them. The plaintiff's claim to copyrights over the works therefore comprises the following 12 items, exhibited in Annex A: (i) one diagram; (ii) nine photographs; and (iii) two graphs. These will be referred to collectively as "the Works".

39 The plaintiff claims copyright over the Works on the basis that they were created by their respective authors during the course of their employment with the plaintiff.[102] In its statement of claim, the plaintiff claims that the authors of the Works are as follows:

(a) the diagram was created by Cheah Li Kang on 4 September 2002;[103]

(b) the first photograph was created by Cheah Li Kang on 3 May 2006;[104]

(c) the second photograph was created by Tracy Tan on 5 November 2007;[105]

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98 Certified Transcript for 23 October 2017, p 87, line 15 – p 88, line 17.

99 Certified Transcript for 23 October 2017, p 111, lines 9-19 and Plaintiff's Closing Submissions, p 16.

100 Certified Transcript for 23 October 2017, p 112, lines 1-9.

101 Certified Transcript for 23 October 2017, p 112, lines 10-12.

102 Statement of Claim (Amendment No 2), [9].

103 Statement of Claim (Amendment No 2), Annex A, p ii, first row.

104 Statement of Claim (Amendment No 2), Annex A, p ii, second row.

105 Statement of Claim (Amendment No 2), Annex A, p iii, first row.



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(d) the third photograph was created by Ricky Chan on 5 March 2007;[106]

(e) the fourth photograph was created by Phua Yong Sang on 13 December 2002;[107]

(f) the fifth to ninth photographs were created by Cheah Li Kang on 27 May 2005;[108] and

(g) the two graphs were created by Cheah Li Kang on 27 November 2003.[109]

40 The defendants dispute the plaintiff's alleged copyright over the Works. Counsel for the defendants essentially makes two points. First, the point is made that it is possible that the Works were created before the incorporation of the plaintiff.[110] Given that there is no evidence that the authors of the Works assigned their copyrights to the plaintiff, it is asserted that the plaintiff does not own the copyrights over the Works.[111] Second, for the nine photographs, the defendants submit that it is unclear if the plaintiff owns the copyrights, given that the plaintiff was only able to produce copies, and not originals, of the photographs.[112] Further, the defendants assert that it is unclear whether the photographs were taken by the plaintiff or by a company named Fabulous Printers Pte Ltd ("Fabulous Printers"),[113] which the plaintiff commissioned to

106 Statement of Claim (Amendment No 2), Annex A, p iii, second row.

107 Statement of Claim (Amendment No 2), Annex A, p iii, third row.

108 Statement of Claim (Amendment No 2), Annex A, pp iv first row, p v, and p vi, second row.

109 Statement of Claim (Amendment No 2), Annex A, p iv, second row and p vi, first row.

110 Defendants' Closing Submissions, [12], [21], [24].

111 Defendants' Closing Submissions, [12].

112 Defendants' Closing Submissions, [20(a)].



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produce a marketing brochure.[114]

41 The basic principles on authorship and ownership of copyright are well established. It will be sufficient to set out a brief summary of the principles of particular relevance to the case at hand.

42 First, in the case of original literary, dramatic, musical and artistic works, copyright vests in the author under s 30(2) of the Copyright Act. "Author" is defined in s 7(1) of the Copyright Act, in cases of photographs, as the person who took the photograph. There is no statutory definition of authorship in the case of literary, dramatic and musical works. Whilst there has been considerable discussion on who is an author in academic literature and case law, the basic principle is clear. The author is the person whose intellectual effort is responsible for the work in terms of its original expressive elements. In many cases the work will be a product of joint authorship: see s 7(1) of the Copyright Act which states that a work of joint authorship means "a work that has been produced by the collaboration of 2 or more authors and in which the contribution of each author is not separate from the contribution of the other author or the contributions of other authors." Joint authors will usually (but not always) hold the copyright as tenants in common. One joint owner can bring an action for infringement without joining in his co-owner, although this may have an impact on remedies.

43 Second, there are special statutory provisions (subject to contrary agreements) which vest the copyright in original works in a person other than the author. These are:

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113 Defendants' Closing Submissions, [20(b)].

114 AEIC of Dr Shi Xu, [37].



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(a) literary, dramatic and artistic works made by a journalist employee in the circumstances set out in s 30(4) of the Copyright Act;

(b) commissioned photographs, paintings, drawings and engravings in the circumstances set out in s 30(5) of the Copyright Act; and

(c) literary, dramatic, musical and artistic works made by an employee in the course of employment as set out in s 30(6) of the Copyright Act.

44 Third, copyright as a species of property can of course be dealt with by assignments and licences. Whilst assignments must be in writing (s 194(3) of the Copyright Act) to be effective at law, an oral assignment may be enforceable, in appropriate cases, as an equitable assignment. Although an equitable assignee may have a sufficient interest to seek interlocutory relief, it may be necessary to perfect the title (by written assignment) or to join in the legal owner if a claim is to be taken through to trial.

45 Fourth, s 195 of the Copyright Act contains statutory provisions which deal with assignments of future copyright. In brief, this deals with an agreement on ownership of copyright that will come into existence at some future date. The provision states that such an agreement will have the effect of vesting the copyright in the assignee as soon as the copyright comes into existence. For example, if an agreement is signed whereby the prospective author agrees to assign the copyright in the work to be written to a third party then as soon as the copyright comes into existence (when the work is reduced to writing or material form), the copyright vests automatically in the third party without the need for any other act.



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46 The fifth point to note is that copyright as a species of property can be made the subject matter of trusts. Equitable interests can arise in copyrights. There is little doubt that in appropriate cases a constructive trust may arise, whether on its own right or as a remedy.

47 The sixth and final general point to underscore is the well-established distinction between a licence and an assignment of the copyright. Save for exclusive licences, there are no formality requirements for a licence. The licence can be expressed or implied and need not even have to be contractual in nature. An exclusive licence (which must be in writing) confers on the licensee the right to sue in his own name, although it may still be necessary to join in the owner if ordered to do so by the court: s 124 of the Copyright Act. A licensee (even an exclusive licensee) does not become the owner of the copyright.

48 After considering the evidence and bearing in mind the above principles, I find that the plaintiff has discharged its burden of proof in respect of its copyright claims over the Works. I now explain the reasons which have led me to this conclusion.

49 Turning first to the diagram, Dr Shi admitted under cross-examination that the diagram was created in 1995 by Cheah Li Kang and himself.[115] This is contrary to what was stated in the statement of claim, where the diagram was said to have been created on 4 September 2002 by Cheah Li Kang.[116] Ordinarily, it would follow that the copyright in the diagram vests in Dr Shi and Cheah Li Kang as joint authors, although this would depend on the detailed facts and circumstances. The evidence, whilst sketchy, will be touched on below.

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115 Certified Transcript for 23 October 2017, p 105, lines 8-19.

116 Statement of Claim (Amendment No 2), Annex A, p ii, first row.



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50 During cross-examination, Dr Shi went on to claim that the copyright to the diagram was originally "owned" by himself and Nanyang Technological University of Singapore ("NTU"),[117] where he was at that time an assistant professor[118] and Cheah Li Kang was a doctorate candidate.[119] Dr Cheah subsequently became the plaintiff's chief technological officer from May 2002 to 31 January 2008.[120] The plaintiff was incorporated in 1999.[121] Dr Shi goes on to claim that the copyright was given to the plaintiff *via* a "licensing" agreement.[122]

51 The problem is that, apart from Dr Shi's assertion, there is no evidence of the actual licensing agreement. It is also unclear what Dr Shi meant by his assertion that he and NTU were the owners of the copyright. Whilst it is certainly possible that NTU acquired a "share" of the rights over the diagram (co-ownership) pursuant to contractual agreements, there is no evidence at all of the relationship between Dr Shi, Dr Cheah and NTU in 1995, such as agreements (if any) and applicable provisions on ownership of intellectual property rights in research output at NTU.

52 It is well-known that contractual provisions regulating the rights and interests of students, supervisors, academics and universities are often complex – and perhaps especially so where outside commercial interests are also involved in the research, whether through funding or provision of resources. It

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117 Certified Transcript for 23 October 2017, p 106, lines 2-3.

118 AEIC of Dr Shi Xu, [3].

119 AEIC of Dr Shi Xu, [40].

120 AEIC of Dr Shi Xu, [40].

121 Statement of Claim (Amendment No 2), [1].

122 Certified Transcript for 23 October 2017, p 106, lines 2-6.



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comes as no surprise that academic commentaries have been written on the subject such as Ann Louise Monotti and Sam Ricketson, *Universities and Intellectual Property, Ownership and Exploitation* (Oxford University Press, 2003). There is no evidence, however, in the present case as to the detailed circumstances under which the FCVA technology, and more importantly, the diagram, were created or developed.

53 Another difficulty is that even if it is assumed that Dr Shi and NTU were the joint owners of the copyright, it is unclear what is meant by assignment of copyright to the plaintiff under a "licensing" agreement. A licensing agreement is not an assignment. It appears Dr Shi meant "an assignment agreement" but the problem is that the actual agreement (and the terms) was not put in evidence.

54 It follows that the question arises whether the plaintiff can rely on any of the statutory presumptions set out in Part V, Division 4 of the Copyright Act. The fact that there are five statutory provisions concerned with presumptions and proof of facts in copyright proceedings provides a salutary reminder of the practical problems which claimants often encounter in establishing copyright and ownership. Of particular relevance to the case at hand are the provisions on authorship, subsistence and ownership of copyright.

55 For convenience, I set out the statutory provision on subsistence and ownership in full:

> 130.—(1) In an action brought by virtue of this Part —
>
> > (*a*) copyright shall be presumed to subsist in the work or other subject-matter to which the action relates if the defendant does not put in issue the question whether copyright subsists in the work or other subject-matter; and



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> (*b*) where the subsistence of the copyright is established — the plaintiff shall be presumed to be the owner of the copyright if he claims to be the owner of the copyright and the defendant does not put in issue the question of his ownership.
>
> (1A) Where the defendant puts in issue the question of whether copyright subsists in the work or other subject-matter or whether the plaintiff is the owner of the copyright, but does not satisfy the court that he does so in good faith, the presumption as to the subsistence or ownership of copyright under subsection(1)(*a*) or (*b*), as the case may be, shall apply notwithstanding that the defendant puts that question in issue.
>
> (1B) Where the defendant, in good faith, puts in issue the question of whether copyright subsists in the work or other subject-matter or whether the plaintiff is the owner of the copyright, an affidavit made on behalf of the plaintiff in which the plaintiff makes assertions of facts relevant to showing —
>
> (*a*) that copyright subsists in the work or other subject-matter; and
>
> (*b*) that he is the owner of the copyright,
>
> shall be admitted in evidence and shall be prima facie proof of the matters stated therein until the contrary is proved, unless the court directs that oral evidence be adduced to prove those matters.
>
> (2) Where a defendant, without good faith, puts in issue the questions of whether copyright subsists in a work or other subject-matter to which the action relates, or the ownership of copyright in such work or subject-matter, thereby occasioning unnecessary costs or delay in the proceedings, the court may direct that any costs to the defendant in respect of the action shall not be allowed to him and that any costs occasioned by the defendant to other parties shall be paid by him to such other parties.

56 In the present case, the defendants have challenged the ownership of copyright.[123] Dr Shi, for the plaintiff, has, in his AEIC, indeed asserted that he was the author of the diagram.[124] Then again, as noted, in cross-examination the assertion was made that the diagram was jointly created by Dr Shi and Dr

123 Defence (Amendment No 3), [4] and [6].

124 AEIC of Dr Shi Xu, p 14, s/n 1.



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Cheah. The diagram in question is set out on a power point slide bearing the plaintiff's name.[125] Dr Shi also stated, in his AEIC, that the plaintiff was the owner of the copyright.[126]

57 In my view, Dr Shi's affidavit is relevant to s 130(1B) of the Copyright Act and constitutes *prima facie* proof of the matters stated therein, unless the contrary is proven. I note that what s 130(1B) of the Copyright Act requires is that the plaintiff make an affidavit in which assertions of facts are made which are relevant to showing that it is the owner of the copyright. In the present case Dr Shi has stated, in his AEIC, that the plaintiff is the owner of the copyright.

58 I also note in passing that the statutory presumption in relation to authorship as set out in s 131 of the Copyright Act provides (in brief) that where a name purporting to be that of the author appears on copies of the work as published, that person is presumed, unless the contrary is established, to be the author of the work. Take for example the Australian case of *Tolmark Homes Pty Ltd v Paul* [1999] FCA 1355. In that case, the applicant, a project homebuilder and developer, alleged that the respondent infringed its copyright in a design plan. An issue emerged as to the authorship of the design plan. The respondent argued that the design plan was drawn by one Ms Johnson, the applicant's draughtsperson. The respondent sought to rely on a similar presumption on authorship in s 127(1) of the Copyright Act 1968 (Aust) as the design plan in question contained a statement stating that it was drawn by Ms Johnson. The applicant argued that the design plan was merely traced by Ms Johnson, from another design plan drawn by one Mr Sneesby, a director and manager at the applicant. The court found that the presumption had been rebutted by the

125 AEIC of Dr Shi Xu, p 14, s/n 1.

126 AEIC of Dr Shi Xu, [36].



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applicant as Mr Sneesby, during his evidence, was asked to place the two design plans over each other, illustrating that the plans were identical and satisfying the court as such.

59 It should be noted that s 131 of the Copyright Act sets out a *presumption* in relation to authorship of a work. On the other hand, s 130(1B) of the Copyright Act states that the affidavit made by the plaintiff shall be admitted into evidence and constitutes *prima facie* proof of the matters stated therein, until the contrary is proved.

60 In the present case, it appears that the authors of the diagram were Dr Shi and Dr Cheah. Dr Shi explains in his AEIC that he is the CEO and founder of the plaintiff,[127] and that Dr Cheah was the plaintiff's chief technological officer from 2002 to 2008.[128] He also asserts in his AEIC that the plaintiff is the owner of the copyright.[129] I am of the view that the defendants have not proved the contrary – namely, that Dr Shi and Dr Cheah were not the authors of the diagram. There is no question that Dr Shi is indeed the founder of the plaintiff. Further, there does not appear to be any dispute over the assertion that Dr Cheah became the plaintiff's chief technological officer. Whilst it may well be true that the diagram was created before the plaintiff was incorporated, this does not mean that the plaintiff could not become the copyright owner. The simple point is that the copyright can be assigned and indeed this is precisely the evidence or at least the effect of the evidence of Dr Shi. I note and accept that under s 130(1B) of the Copyright Act, the burden, at the end of the day, remains on the plaintiff to establish ownership. The affidavit is *prima facie* proof of the

127 AEIC of Dr Shi Xu, [1].

128 AEIC of Dr Shi Xu, [40].

129 AEIC of Dr Shi Xu, [36].



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matters stated. I have no doubt that, ideally, the applicable provisions on ownership of intellectual property rights in research output at NTU and the "licensing" agreement should have been put into evidence. Nevertheless, looking at the evidence as a whole, including the evidence that the plaintiff has obtained some 45 patents over FCVA technology,[130] I am satisfied that the plaintiff has done enough to establish ownership of the copyright in the diagram. Further, whilst not in any sense conclusive, I note that there is no evidence at all that NTU has claimed any rights over the FCVA technology in general or the diagram in particular.

61 Although the plaintiff's evidence on the authors of the nine photographs also has inconsistencies, I find that this ultimately has no impact on its claim to copyrights over the nine photographs. In its statement of claim, the authors of the nine photographs were listed as Cheah Li Kang, Tracy Tan, Ricky Chan and Phua Yong Sang, who were/are employees of the plaintiff.[131] Under cross-examination, however, Dr Shi admitted that the photographs were taken by Fabulous Printers,[132] which the plaintiff commissioned to produce a marketing brochure.[133] Even if the photographs were taken by Fabulous Printers, the plaintiff would still own the copyrights over the photographs by virtue of s 30(5) of the Copyright Act, which states:

> Subject to subsection (4), where –
>
> (a) a person makes, for valuable consideration, an agreement with another person for the taking of a photograph … by the other person; and
>
> (b) the work is made in pursuance of the agreement,

130 AEIC of Dr Shi Xu, [11].

131 Statement of Claim (Amendment No 2), [6].

132 Certified Transcript for 23 October 2017, p 108, lines 17-24.

133 AEIC of Dr Shi Xu, [37].



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> the first-mentioned person shall be entitled to any copyright subsisting in the work …

The fact that the original photographs were not adduced, perhaps because they may have been in the possession of Fabulous Printers, is thus immaterial. I find that the plaintiff has copyrights over the nine photographs.

62 As for the two graphs, these were said to be created by Cheah Li Kang during his employment with the plaintiff.[134] Section 30(6) of the Copyright Act, as noted above, states:

> Where a literary, dramatic or artistic work … is made by the author in pursuance of the terms of his employment by another person under a contract of service … that other person shall be entitled to any copyright subsisting in the work …

By virtue of s 30(6) of the Copyright Act, the plaintiff is entitled to the copyrights over the two graphs.

63 I now turn to the question of whether the 1st defendant infringed the plaintiff's copyrights in the diagram, nine photographs and two graphs. I find that the 1st defendant did infringe the plaintiff's copyrights in the diagram, nine photographs and two graphs by reproducing them in the Semivac Slides. In coming to this conclusion I note the 3rd defendant admitted under cross-examination that he created the Semivac Slides by copying from the plaintiff's slides, which contained the diagram, nine photographs and two graphs.[135]

64 This is not a case where there is mere similarity between the "ideas" or "concepts" as set out in the works of the plaintiff and defendants. The plaintiff's works and the alleged infringing Semivac Slides are nearly identical.

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134 Statement of Claim (Amendment No 2), Annex A, p iv, second row and p vi, first row.

135 Certified Transcript for 26 October 2017, p 23, lines 6-10.



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65 In coming to the conclusion that the Semivac Slides have infringed the plaintiff's copyrights, I note that some of the Semivac Slides include additional elements or points of graphic detailing, as compared to the plaintiff's Works. For example, the Semivac Slides' version of the diagrammatic representation of the FCVA system has a good deal of added background graphics (see Annex A). The same is true for the Semivac Slides' version of Photo 2 (as marked in Annex A). This does not, however, make a difference to copyright infringement.

66 It is well-established that in deciding whether a substantial part of the plaintiff's work has been reproduced, what is important is to identify what was copied (taken) from the copyright work and reproduced in the alleged infringement, and then to ask whether that part which was taken is a qualitatively substantial part of the copyright work. For example, to reproduce the plaintiff's photograph of an object and to add depictions of other objects as well as fresh literary information does not alter the fact that the plaintiff's photograph was used: see, generally, *Designers Guild Limited v Russell Williams (Textiles) Limited* [2000] 1 WLR 2416. The issue is whether a substantial part of the copyright work has been taken and not whether the part taken forms a substantial part of the infringing reproduction.

***The Semivac Drawings***

67 The plaintiff also contends that it owns the copyrights in the 48 Semivac Drawings.[136] The plaintiff's case appears to be that the Semivac Drawings, which bear the 1st defendant's name, were created by the 2nd defendant for the 1st defendant whilst he was an employee of the plaintiff and with the use of the plaintiff's equipment (laptop and computer programs).[137] These, include (for

136 Statement of Claim (Amendment No 2), [7] but see also Plaintiff's Closing Submissions, [3].



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example):[138]

(a) a technical drawing described as a "Senser Clamp";

(b) a technical drawing described as an "Inner Bush" with Part No SV-VIM-300021;

(c) a technical drawing described as a "Screw" with Part No SVVIM-300015;

(d) a technical drawing described as a "Frame"; and

(e) a technical drawing described as a PTFE Plate with Part No SV-00-003-0018.

68 I pause to note that there is some lack of clarity over just what are the technical drawings over which the plaintiff claims copyright. There are two possibilities. The first is that the plaintiff is asserting copyright in the underlying technical drawings that were created by the 2nd defendant and/or the plaintiff's other employees in the course of employment with the plaintiff. The plaintiff alleges that these technical drawings were adapted by the 2nd defendant, to create the Semivac Drawings. The second possibility is that the plaintiff is asserting copyright in the Semivac Drawings: these are the technical drawings done by the 2nd defendant at the request of the 3rd defendant, for the 1st defendant.

69 The difficulty is that it is unclear when the Semivac Drawings were created and whether they are direct copies or adaptations of the plaintiff's existing technical drawings.

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137 Statement of Claim (Amendment No 2), [7] and [10].

138 Statement of Claim (Amendment No 2), [7].



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70 What is undisputed is that the Semivac Drawings were found in the 2nd defendant's laptop (recovered with the help of Nexia) after his employment was terminated.

71 The plaintiff's case essentially is that these 48 Semivac Drawings were created by the 2nd defendant whilst he was an employee of the plaintiff.[139] By this, what the plaintiff appears to mean is that the 2nd defendant was responsible for the Semivac Drawings and that the 2nd defendant had either created technical drawings of component parts in the course of employment with the plaintiff[140] or copied technical drawings made by other employees of the plaintiff, modified them, and added the Semivac identifier.[141] It appears that the plaintiff's case is that it should be inferred that this was done for the purposes of enabling the 1st defendant to produce component parts and to market these in competition with the plaintiff, either as spare parts or as complete machines.[142]

72 The plaintiff thus claims that it is the lawful owner of the copyright in the 48 Semivac Drawings on the basis of:

(a) the fact that they were created by the 2nd defendant in the course of his employment with the plaintiff;[143]

(b) a "constructive trust for the Plaintiff as the creation of the Semivac Drawings falls within the scope of employment of the 2nd Defendant with the 2nd Defendant using the resources (ie.

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139 Statement of Claim (Amendment No 2), [7].

140 Statement of Claim (Amendment No 2), [7].

141 Statement of Claim (Amendment No 2), [24(ii)].

142 Statement of Claim (Amendment No 2), [14].

143 Statement of Claim (Amendment No 2), [9]



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laptop, software) of the Plaintiff to create the said drawings";[144] and

(c) by "virtue of an Agreement of Invention Assignment and Confidentiality signed by the 2nd Defendant and the Plaintiff on 6 April 2000."[145]

73 The plaintiff's claim for copyright infringement against the 1st defendant in respect of the Semivac Drawings is broadly concerned with the complaint that infringing copies of the relevant works were made in the course of the provision of maintenance services for machines sold by the plaintiff.[146] The case as pleaded is that, to carry out maintenance services, it was necessary for the 1st defendant to possess a FCVA-compatible machine.[147] In order to make such a machine, it is alleged that the plaintiff's technical drawings were copied to make various component parts which were then used to make a FCVA-compatible machine.[148] The 1st defendant's FCVA-compatible machine was accordingly a three-dimensional reproduction of the various two-dimensional technical drawings.[149]

74 I pause to note that there is no satisfactory explanation or evidence as to why it was necessary for the 1st defendant to build its own FCVA-compatible machine in order for it to be able to provide maintenance services to customers of the plaintiff. Whilst it may have been necessary to produce certain component

144 Statement of Claim (Amendment No 2), [10]

145 Statement of Claim (Amendment No 2), [11].

146 Statement of Claim (Amendment No 2), [14].

147 Statement of Claim (Amendment No 2), [14(ii)].

148 Statement of Claim (Amendment No 2), [14(iv)].

149 Statement of Claim (Amendment No 2), [14(v)].



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parts to replace parts which were worn out or damaged in the customer's machine, the evidence as to why the 1st defendant had to produce a complete FCVA machine was hard to follow.

75 To be clear, there is no evidence from any of the plaintiff's actual customers of their having engaged the 1st defendant to service, repair or provide maintenance services for FCVA machines purchased from the plaintiff. That said, it does appear that the 1st defendant did fabricate parts for some customers based on the Semivac Drawings. This much was admitted by the 3rd defendant in cross-examination.[150] In a similar vein, the 2nd defendant's evidence was that the 1st defendant's business was in the area of repair and servicing of vacuum pumps, motors and power supplies.[151] Where a spare part was needed, these would be obtained from OEM suppliers.[152] If the part was not available, the 1st defendant would arrange for the part to be made, in which case they would need to generate technical drawings from samples.[153]

76 In summary, the plaintiff claims that two types of infringing reproductions of the Semivac Drawings were made by the 1st defendant when building its FCVA or DCVA machine:

(a) First, by transferring the plaintiff's technical drawings from one computer to another and making the Semivac Drawings which were based on or adapted from the plaintiff's technical drawings (these having been made by the 2nd defendant or other employees in the course of their employment with the plaintiff).[154]

150 Certified Transcript for 26 October 2017, p 100, lines 10-13.

151 Certified Transcript for 25 October 2017, p 31, lines 4-7.

152 Certified Transcript for 25 October 2017, p 39, lines 15-20.

153 AEIC of Xu Yibo, [14].



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The Semivac Drawings were subsequently reproduced in the course of seeking quotations from part manufacturers.[155]

(b) Second, by fabricating three-dimensional components in accordance with the Semivac Drawings.[156]

77 The defendants' basic position is that they deny that the plaintiff owns the copyrights in the 48 Semivac Drawings.[157] Specifically, counsel for the defendants submits that the Semivac Drawings were not created during the course of the 2nd defendant's employment with the plaintiff as the plaintiff is not in the business of creating such technical drawings (*ie*, technical drawings for components belonging to third parties).[158]

78 On the contrary, the defendants' case is that the Semivac Drawings were created during the course of the 2nd defendant's employment with the 1st defendant, and the 1st defendant thus owns the copyright over the Semivac Drawings.[159] These technical drawings (which, as it will be recalled, bear the 1st defendant's name) are said to have no relevance at all to the plaintiff's product or systems.[160]

79 In this way, the defendants' core position appears to be that, aside from the four Semivac Drawings which the 2nd defendant admits to copying/adapting

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154 Statement of Claim (Amendment No 2), [14(iii)].

155 Certified Transcript for 26 October 2017, p 100, lines 17-20.

156 Plaintiff's Closing Submissions, p 19.

157 Defendants' Closing Submissions, [51].

158 Defendants' Closing Submissions, [36(b)],

159 Defendants' Closing Submissions, [51].

160 Defence (Amendment No 3), [5]



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from the plaintiff's technical drawings, all the other Semivac Drawings were created by the 2nd defendant without any reference to or use of technical drawings made for the plaintiff.[161]

80 In the alternative, the defendants aver that there was no copyright infringement in relation to the Semivac Drawings as the plaintiff's technical drawings have been industrially applied, thus satisfying s 70(1) of the Copyright Act.[162]

81 Finally, the defendants also take the position that there is no evidence that the 1st defendant transferred the technical drawings from one computer to another,[163] or that the 1st defendant manufactured components relating to the plaintiff's FCVA machine.[164]

82 In short, it appears that the defendants take the position that, whilst the 2nd defendant did use the plaintiff's laptop to create the Semivac Drawings, these drawings and the relevant components are for machines and processes which have nothing to do with the plaintiff's FCVA machine. The defendants' case is that the drawings related to third party components for paint spray systems, ion milling systems, and wafer pick-up semiconductors.[165] However, as noted above, I have found that the 3rd defendant was most surely interested in producing DCVA machines and components.

83 I turn first to consider the issue as to whether the plaintiff is entitled to

161 Defendants' Closing Submissions, [46].

162 Defendants' Closing Submissions, [36(a)]. Defence (Amendment No 3), [10].

163 Defendants' Closing Submissions, [36(e)].

164 Defendants' Closing Submissions, [36(d)].

165 AEIC of Hu Lang, p 14.



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copyright in the Semivac Drawings. As noted already, s 30(6) of the Copyright Act stipulates that the copyright in a work belongs to the employer where the work is made by an employee in pursuance of the terms of his employment. Whether a work is created by an employee in pursuance of the terms of his employment is a question of fact.

84 If the Semivac Drawings were created by the 2nd defendant and/or other employees of the plaintiff at the instruction of the plaintiff, there would be no doubt that the copyrights would belong to the plaintiff. The position is trickier where, as is the case here, the 2nd defendant whilst he is an employee uses the plaintiff's equipment (the laptop and CAD program) to create the Semivac Drawings for the 1st defendant, at the request of the 3rd defendant. Leaving aside breaches of duties of fidelity, *etc*, the mere fact that the 2nd defendant used the plaintiff's equipment to create the drawings does not mean that he did so in the course of his employment with the plaintiff. Indeed, at first sight, it may even seem a little odd for the plaintiff to claim that the works produced by the 2nd defendant in breach of his contractual duties of fidelity, *etc*, are nevertheless to be regarded as works that were made *in the course of employment* with the plaintiff.

85 For example, if X is employed by Y (a specialist in computer programs for electronic games) as a programmer and goes on to use Y's computer to create a computer program for Z (a specialist in spreadsheet programs) without Y's knowledge, it does not follow that the spreadsheet program was made in the course of his employment with Y.

86 On the other hand, the plaintiff submits that an employee who creates a work of the type that he was employed to create, but does so for a third party,



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cannot assert his own breach of fiduciary duty to deny that it was written in the course of employment.[166] The case relied on is *Missing Link Software v Magee* [1989] 1 FSR 361 ("*Magee*"). The 1st defendant in that case was formerly the software development manager of the plaintiff company. He left and set up his own company, marketing a computer system which was a rival to the plaintiff's personnel management system. An independent expert appointed by the plaintiff could not find any evidence of similarities in the systems such as to suggest copyright infringement or misuse of confidential information. Nevertheless, it was claimed that the only explanation for how the defendant was able to write a competing program so quickly was that he must have written the whole or large portions of the program whilst he was still an employee of the plaintiff.

87 The plaintiff in *Magee*, in seeking interlocutory relief, argued that the copyright in the competing program belonged to it. In an earlier motion to discharge the interlocutory injunction, Hoffmann J (as he then was) held at 367 that there were two ways in which the plaintiff's claim to the copyright might be supported. First, the defendant, in writing a competing program whilst employed by the plaintiff, was arguably acting in breach of the fiduciary duties which he owed to the plaintiff. On this basis, Hoffmann J held it was arguable that the "fruits of the breach", namely, the copyright in the program or the part of it which he wrote while in the plaintiff's employment, was held on constructive trust for the plaintiff. Alternatively, it was arguable that since the defendant was in breach of his fiduciary duty in writing the program, he could not be allowed to set up his own breach to prove that the program was written outside of the course of his employment.

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166 Plaintiff's Closing Submissions, p 26.



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88 In a subsequent motion, Judge Paul Baker QC, relying on two cases drawn from the law on patents, *British Syphon Company Limited v George Sidney Homewood* [1956] RPC 225 and *Patchett v Sterling Engineering Company Limited* (1955) 72 RPC 50 ("*Patchett*"), came to a similar conclusion. In *Patchett*, Viscount Simonds stated at 56 that:

> It is elementary that, where the employee in the course of his employment (*i.e.* in his employer's time and with his materials) makes an invention which it falls within his duty to make ... he holds his interest in the invention, and in any resulting patent, as trustee for the employer, unless he can show that he has a beneficial interest which the law recognises.

89 In *Magee*, Judge Baker QC opined that this principle was not necessarily confined to work done during hours of work.[167] If the defendant was employed to make an invention and finds that inspiration comes to him in the bathtub, that inspiration would still fall within Viscount Simonds' statement of principle.

90 A number of points arise in respect of the *Magee* decision. First, the decision was interlocutory and arose in the context of a grant of interim injunctive relief.[168] Second, the view that there may be scope for the imposition of a constructive trust by way of an equitable restitutionary remedy where the work is written in breach of a fiduciary obligation or in breach of the duty of fidelity, is one that resonates with principle. Third, the alternative view that a defendant cannot set up his own breach in support of his claim that the work was not produced in the course of employment, is one that needs to be examined with care. Much will depend on the facts and circumstances, including the nature and scope of the obligation said to be breached.

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167 *Magee*, p 365.

168 *Magee*, p 368.



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91 I pause to note that not all employees will owe fiduciary obligations to their employers. Indeed, it seems clear that the employment relationship is not a fiduciary relationship as such, but that in appropriate cases an employee may be found to owe fiduciary obligations to his or her employer. In the present case, even if the 2nd defendant was not a fiduciary, the point remains that there is no doubt that he owes a contractual duty of fidelity to the plaintiff. To be sure, there is some uncertainty as to the difference in content between the two and it has been said the contractual duty of fidelity requires something less than single-minded loyalty. Nevertheless, this does not mean that the duty of fidelity does not apply to acts done outside office hours. The 2nd defendant's duty of fidelity will be discussed in more detail later.

92 Turning to the evidence in the case at hand, it will be recalled that the Semivac Drawings were found in the 2nd defendant's laptop after his resignation.[169] This laptop was provided by the plaintiff for the 2nd defendant's use in carrying out his work for the plaintiff. It is clear from the evidence that the 2nd defendant, whilst he was still an employee, used the laptop both during and after office hours, to create these drawings.[170]

93 The general point has been made that FCVA technology or FCVA machines comprise many hardware components. Some of these components could be obtained from OEM suppliers.[171] The evidence suggests that sometimes modification may be necessary to adapt the part for the plaintiff's purposes.[172] In other cases, it appears that parts would be designed completely in-house and

169 AEIC of Dr Shi Xu, [46].

170 Certified Transcript for 25 October 2017, p 24 – p 27, line 4.

171 Certified Transcript for 23 October 2017, pp 59-60, lines 25-3 and AEIC of Dr Shi Xu, [55].

172 AEIC of Dr Shi Xu, [55].



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developed solely to the plaintiff's design and specifications.[173]

94 Either way, it is clear that a good deal of technical design drawings would be created by the plaintiff over the course of years. Some of these technical design drawings might even be produced by means of reverse engineering of existing parts produced by third party suppliers.[174] But even if that is so, I note there is no claim or evidence of any third party asserting rights or even making complaints against the plaintiff. Further, it does not follow that a technical drawing produced by examining and studying the actual component will lack originality (on the basis that it is a slavish indirect copy of the third-party OEM technical drawings). Whilst it is correct, as a matter of general principle, that a copy of a copy of an original is still a copy, any copy, to infringe, must still reproduce a substantial part of the original that is relied on. Whether it does, must depend on the facts and circumstances. In any case, the point that is presently being made is that I am satisfied that such technical drawings for component parts would indeed be produced in connection with the plaintiff's business.

95 What is clearly important is not just the design of individual component parts, but the system as a whole. It follows that there may well be some technical drawings of the plaintiff which relate to components that are not "exclusively" made for FCVA machines. The defendants assert that the copyrights in the Semivac Drawings do not belong to the plaintiff as the Semivac Drawings do not relate to the plaintiff's FCVA technology, and that the plaintiff and 1st defendant are not competitors.[175] Looking at the evidence as a whole, I have

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173 Certified Transcript for 23 October 2017, p 60, lines 5-8.

174 AEIC of Xu Yibo, [8] and AEIC of Hu Lang, [6].

175 Defence (Amendment No 3), [2] and [5].



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come to the view that the plaintiff's evidence is to be preferred, in that whilst some of the drawings may well relate to standard components, this does not mean that they are not related to the plaintiff's business.

96 In reaching my decision, I have no doubt that even if the DCVA technology is not identical with FCVA technology, the goals and purposes are essentially the same. To be sure, whilst there may be components which are found only in FCVA machines, the evidence supports the view that there are many other parts which are common to both DCVA and FCVA machines, or which are similar.[176]

97 In any case, the evidence is clear that the plaintiff is in the business of manufacturing and providing FCVA technology products and services.[177] As part of this business, its employees, such as the 2nd defendant, design vacuum technology components using software.[178] These components do not necessarily relate to the plaintiff's FCVA technology alone. As mentioned earlier, the plaintiff sells more traditional coating machines as well.[179] The 2nd defendant himself admitted that his duties at the plaintiff included:[180]

> creat[ing] 2D Drawings for *other brands of sputtering sources and ion sources* for the purposes of making imitations or reverse engineering of other brand sources. These copied or modified sources would be sold as part of the Plaintiff's machines. [emphasis added]

In other words, the 2nd defendant's job scope was not limited to designing

176 Certified Transcript for 26 October 2017, p 128, lines 2-7.

177 Statement of Claim (Amendment No 2), [1].

178 Statement of Claim (Amendment No 2), [3].

179 Certified Transcript for 23 October 2017, p 50, lines 7-11 and Certified Transcript for 25 October 2017, p 28, lines 4-10.

180 AEIC of Xu Yibo, [8].



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components solely connected with the plaintiff's FCVA technology. Rather, his job scope included designing components relating to general vacuum technology.

98 I find that my conclusion is further buttressed by the evidence of the 3rd defendant. Similar to the 2nd defendant, the 3rd defendant stated that:[181]

> The Plaintiff also carry [*sic*] out reverse engineering of vacuum components to make compatible components of other brands and use in their own machines and sell them to customers. They would generate 2D drawings of parts of the purchased components and manufacture the component.

And that:[182]

> *One such component purchased by the Plaintiffs [sic] and reverse engineered was an Ion Milling Source* which they had purchased from a company called Advance Energy Industries Inc, a company incorporated in America. [emphasis added]

99 Subsequently, when the 3rd defendant sought to prove that the technical drawings were of components belonging to third parties, he produced a table detailing the different kinds of machines the technical drawings are alleged to relate to.[183] Pertinently, multiple drawings are said to relate to "Ion Milling system, US company".[184] It appears to me that this system is the same system the plaintiff is said to have created technical drawings for, for the purposes of reverse engineering. It is thus clear that the 2nd defendant's creation of the technical drawings does indeed overlap with the plaintiff's business, in the sense

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181 AEIC of Hu Lang, [6].

182 AEIC of Hu Lang, [6].

183 AEIC of Hu Lang, [19].

184 AEIC of Hu Lang, p 14, eg s/n 9-14.



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that those drawings also relate to components that are related to or which might be used in the plaintiff's machines and related technologies.

100 In short, the evidence as a whole supports the finding that technical drawings for a large variety of components and parts were made by various employees of the plaintiff, including the 2nd defendant, over the course of many years. Whilst many of these drawings would relate specifically to FCVA technology, I am satisfied that other drawings relate to parts which are either not exclusive to FCVA technology or which are for related technologies and machines, including sputtering machines. Indeed, the defendants admit to basing four of the Semivac Drawings off the plaintiff's pre-existing technical drawings.[185] The point is that, if the plaintiff and 1st defendant were in wholly unrelated businesses and the products did not overlap, it is surprising that the 2nd defendant would copy or modify the plaintiff's pre-existing technical drawings to create the Semivac Drawings for the 1st defendant.

101 For these reasons, I make the following findings:

(a) Many of the Semivac Drawings (which were prepared at the request of the 3rd defendant) were in all likelihood either copies of or adapted from the technical drawings referred to above at [100].

(b) Some Semivac Drawings may have been prepared from scratch by the 2nd defendant, in the sense that they were not copied from pre-existing technical drawings of the plaintiff.

(c) The Semivac Drawings were for component parts which fell within the scope of the 2nd defendant's employment, in the sense

185 Defendants' Closing Submissions, [45].



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> that these were the sort of parts that he was expected to design for the plaintiff.

102 It follows that there is no doubt that the plaintiff is the owner of the copyright in the technical drawings that were created by its employees in the course of employment, even if some drawings related to components or parts that were not exclusive to FCVA machines or were required for use in connection with some different type of machine or technology. If a substantial part of such a copyrighted drawing was copied by the 2nd defendant for the 1st defendant, a *prima facie* case of copyright infringement will arise (defences aside).

103 The question whether there are separate copyrights in the Semivac Drawings (whether because they are original as sufficient changes had been made to the expressive elements as set out in the underlying technical drawings, or simply because they are not copies of any pre-existing work) and who is the owner of the copyright is a different matter.

104 Leaving aside for the moment the question of originality, it appears that the plaintiff does have a number of alternative grounds on which it can be said to be the copyright owner.

105 First, following *Magee*, it may be said that the 2nd defendant cannot rely on his own breach of contract (engaging in work for the 1st defendant) to make good the submission (and effectively take advantage of his own wrongdoing) that the Semivac Drawings were not made in the course of his employment with the plaintiff. This follows from the finding that the creation of the Semivac



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Drawings fell within the general scope of what the 2nd defendant was employed by the plaintiff to do.

106 Second, the plaintiff may also be able to assert rights over the Semivac Drawings on the basis of a constructive trust. I note that the principle that copyright can be the subject matter of a trust, including a constructive trust, is well-established and not in dispute. For example, several members of the UK's House of Lords in *Attorney-General v Guardian Newspapers Ltd* (No 2) [1990] 1 AC 109 expressed the view (in *obiter*) that the Crown would have strong arguments to claim the copyright in a book in equity given that the book had been written by the author (a recently retired head of an intelligence agency) and published in flagrant breach of confidence. The author in that case was not a simple confidante or employee who owed a duty of fidelity; he was in a very real sense a fiduciary of the Crown: see Lord Keith of Kinkel at 263, Lord Griffiths at 276; see also *Attorney-General v Blake* [1998] 2 WLR 805 and *Attorney-General v Blake* [2001] 1 AC 268 ("*A-G v Blake*").

107 In the present case, it is not necessary to come to a firm landing on whether the plaintiff can assert rights over the Semivac Drawings on the basis of a constructive trust. Instead, I find that the plaintiff is entitled to claim the copyrights to the Semivac Drawings for the following reasons. First, following *Magee*, the Semivac Drawings can be said to have been made in the course of the 2nd defendant's employment with the plaintiff. The 2nd defendant was not a junior employee. Instead, he was the manager of production mechanical and subsequently a senior engineer.[186] He was given access to computer equipment, and special access to the plaintiff's database of technical drawings, by virtue of his high position in the plaintiff company.[187] Further, the components designed

186 Statement of Claim (Amendment No 2), [3].



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in the Semivac Drawings were indeed the type of components that fell within his employment scope.

108 Second, even if the Semivac Drawings were not made in the course of the 2nd defendant's employment with the plaintiff, the plaintiff would still be entitled to the copyright (if any) in the Semivac Drawings because of the Agreement of Invention Assignment and Confidentiality.

109 As noted earlier, the 2nd defendant signed an Agreement of Invention Assignment and Confidentiality on 6 April 2000 which stipulated that:[188]

> If at any time during the term of employment with the [plaintiff] …. the [2nd defendant] (either alone or with others) makes … any work in any medium whatever including any … drawing … and whether in two or three dimension … which relates to any of the products or methods of production of the [plaintiff[ or otherwise to the business of the [plaintiff] or which results from or is suggested by anything done in the course of the [e]mployment, then all rights in such … [d]esigns shall be the sole and absolute property of the [plaintiff] …

110 Section 195 of the Copyright Act, as applied to the above contractual provision, will have the effect of vesting the copyright in such drawings in the plaintiff. I pause to add that the defendants in their pleadings and closing submissions did not raise any issue over the enforceability of the contractual provision, whether on grounds of restraint of trade or otherwise. The only argument raised by counsel for the defendants as to the applicability of the Agreement of Invention Assignment and Confidentiality is that it only covers works related to the business of the plaintiff,[189] and that the Semivac Drawings

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187 AEIC of Dr Shi Xu, [24]-[25].

188 Agreed Bundle of Documents, vol 1, p 27.

189 Defendants' Closing Submissions, [54]-[55]. See also Defence (Amendment No 3), [8].



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do not relate to the plaintiff's business. However, I have found that the Semivac Drawings are indeed related to the business of the plaintiff. I thus reject counsel for the defendants' argument.

111 Before I leave the issue of ownership of copyright, I pause to make the observation that the Semivac Drawings will only attract copyright in the first place if they are original works in their own right. This is not a point on which detailed submissions were made. Indeed, the defendants have not pleaded or challenged copyright in the Semivac Drawings on the basis that they are simply slavish copies of pre-existing drawings. I make two observations before considering whether the Semivac Drawings are original works. First, if a Semivac Drawing is simply a slavish copy of a pre-existing technical drawing, it will not attract copyright as an original work. Second, if a Semivac Drawing, whilst based on a pre-existing drawing, exhibits sufficient additions and modifications, *etc*, it may well attract its own copyright as an original work (whether or not it infringes copyright in the copied drawing). Third, if a Semivac Drawing is not copied from any pre-existing work at all – it will in all probability be regarded as original and protected by copyright.

112 I now turn to the question of whether the 1st defendant infringed the plaintiff's copyright. Given the above analysis, it is convenient to split the discussion into two parts: (i) infringement and the plaintiff's pre-existing technical drawings; and (ii) infringement and the Semivac Drawings.



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*Infringement and the plaintiff's pre-existing technical drawings*

(1) Do the Semivac Drawings reproduce a substantial part of the plaintiff's pre-existing technical drawings?

113 Before I turn to the first question (whether the Semivac Drawings reproduced a substantial part of the technical drawings of the plaintiff), I note again the earlier point at [94] that even if a pre-existing technical drawing was produced by reverse engineering for the plaintiff, it does not follow that the technical drawing that was produced must lack originality. For clarity and avoidance of doubt, I approach this part of the judgment on the basis that the pre-existing technical drawings are original. As will be seen, little turns on this since the conclusion I have reached is that the plaintiff fails in its claim for infringement of any copyright in the pre-existing technical drawings produced and relied on.

114 Although the plaintiff alleges that "most" of the Semivac Drawings were "either identical with or very similar to" the plaintiff's technical drawings, only alleged equivalents of 17 of the Semivac Drawings were produced.[190] For the avoidance of doubt, the 17 Semivac Drawings for which the plaintiff's equivalents were produced are labelled as: (a) Senser Clamp; (b) Pulley 1; (c) Shaft 1; (d) Shaft 2; (e) Ball-Screw (L=280); (f) Ball-Screw (L=550); (g) Transfer Plate; (h) Transfer Plate 2; (i) Top Plate; (j) Bottom Plate; (k) Side Support; (l) Side Support 2; (m) Senser Slit; (n) Senser Frame 1; (o) Senser Frame 2; (p) Motor Support; and (q) Motor Support 1. The 17 Semivac Drawings and the plaintiff's alleged equivalents are set out in Annex B.

190 AEIC of Dr Shi Xu, pp 22-24.



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115 In the case of the Semivac Drawing named Senser Clamp, Dr Shi's evidence is that the plaintiff's equivalent drawing is called Sensor Plate.[191] The drawings are said to be identical, save for the addition of the 1st defendant's name.[192] Indeed, this court agrees that the drawings do appear to be almost identical in shape and detail. According to Dr Shi, the Sensor Plate drawing was produced by an employee called Tang Wei.[193] The defendants, on the other hand, take the position that this drawing is for a component to be used in a paint spray system.[194] The response which I accept is that the Sensor Plate was specifically designed for use in a FCVA machine, in connection with the placement of upper and lower limit sensors.[195]

116 In the case of the Semivac Drawing named Pulley 1, Dr Shi's evidence is that the plaintiff's equivalent is called Timing Pulley.[196] The plaintiff's position is that the drawings are visually similar, asides from a difference in dimensions.[197] A visual comparison confirms that the drawings are indeed very close in shape and detailing. The plaintiff claims that the drawing was made by another employee called Tan Yajuan.[198] Once again, the defendants' case is that this component is for use in paint spray systems.[199] The plaintiff's response is that the Timing Pulley is a component used in the FCVA machine for target rotation.[200]

191 AEIC of Dr Shi Xu, [51].

192 AEIC of Dr Shi Xu, [51].

193 AEIC of Dr Shi Xu, [51].

194 AEIC of Hu Lang, p 14, item 1.

195 AEIC of Dr Shi Xu, [52].

196 AEIC of Dr Shi Xu, [53].

197 AEIC of Dr Shi Xu, [53].

198 AEIC of Dr Shi Xu, [53].

199 AEIC of Hu Lang, p 14, item 2.



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117 In the case of the Semivac Drawings named Shaft 1 and Shaft 2, the plaintiff's equivalents are called Sliding Rod and Support Shaft. The plaintiff asserts that the functions and shapes are the same – the only differences being the dimensions.[201] Whilst it may well be that the functions and general shape of the articles depicted are similar, I note that considerable detailing in the plaintiff's drawings are not reproduced. Shaft 1 and Shaft 2 are far simpler in detailing. The significance of this point will be discussed below.

118 In the case of the Semivac Drawings named Ball Screw (L=280) and Ball Screw (L=550), the plaintiff's equivalent is called Ball Screw.[202] The plaintiff asserts that the functions and shapes are the same – the only differences being the dimensions.[203] Once again, I note that Ball Screw (L=280) and Ball Screw (L=550) are far simpler; if they were based on the plaintiff's Ball Screw drawing, a considerable amount of detailing is not reproduced.

119 In the case of the six drawings listed above as items (g) to (l) alleged by the defendants to be for use in a paint spray system,[204] the plaintiff asserts that these are similar parts, with the concepts copied from the FCVA source.[205] Whilst this may be so, it is immediately apparent that the Semivac Drawings, once again, are far simpler in terms of what is visually depicted. To the uninformed eye it would be hard to identify what, if anything, was taken from

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200 AEIC of Dr Shi Xu, [54].

201 AEIC of Dr Shi Xu, p 24.

202 AEIC of Dr Shi Xu, p 24.

203 AEIC of Dr Shi Xu, p 24.

204 AEIC of Hu Lang, p 14.

205 AEIC of Dr Shi Xu, p 24.



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the plaintiff's drawings – aside from the concept. Indeed, it is not even obvious to the uninformed eye what is the concept that is being referred to.

120 In the case of the Semivac Drawings named Senser Slit, the plaintiff's equivalent is called Sensor Tail 2.[206] Once again, the plaintiff asserts that these are similar parts, and that the concept for Senser Slit is copied from the FCVA source.[207] The same point arises; Senser Slit bears little visual resemblance to Sensor Tail 2 – at least in terms of the expressive elements.

121 In the case of the Semivac Drawings named Senser Frame 1 and Senser Frame 2, the plaintiff's equivalent is called Sensor Location Plate.[208] The plaintiff asserts that these are similar or identical to the plaintiff's technical drawings.[209] That said, a visual comparison does not support the claim that the drawings are identical. Indeed, the degree of visual similarity is low and it does not appear that anything was taken, except perhaps the general purpose of the component.

122 Finally, in the case of the Semivac Drawings named Motor Support and Motor Support 1, the plaintiff's equivalent drawings are called Motor Bracket and Motor Bracket/ Motor Mount Plate, respectively.[210] The plaintiff asserts that a concept similar to the concept in Motor Support and Motor Support 1 is used in FCVA.[211] In this case, whilst I agree there are more points of visual similarity, which suggest that more of the visual detailing in the plaintiff's diagrams were

206 AEIC of Dr Shi Xu, p 24.

207 AEIC of Dr Shi Xu, p 24.

208 AEIC of Dr Shi Xu, p 24.

209 AEIC of Dr Shi Xu, p 24.

210 AEIC of Dr Shi Xu, p 24.

211 AEIC of Dr Shi Xu, p 24.



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taken, at the end of the day, it appears that what was taken was essentially the concept. Indeed, this was how the plaintiff described the Semivac Drawings, as against the plaintiff's equivalent drawings.[212]

123 In reaching a decision on whether the alleged infringing drawings have reproduced a substantial part of the copyrighted works, it must be borne in mind that copyright protects original expression and not the underlying idea, goal or information embodied in a work. If the idea behind a drawing is to use a depiction of a human hand to point the direction for a pedestrian, it can hardly be surprising if two signboards based on same general concept depict something that looks like a human hand: see the well-known case of *Kenrick & Co v Lawrence & Co* (1890) 25 QBD 99.

124 Whilst it is well-established that copyright can subsist in very simple line drawings (technical or otherwise), there is much to be said for the oft-repeated statement that the simpler the work, the more exact the copy must be, for it to be regarded as infringing. By simple, what is meant is a work where the author's expression of the idea or concept is so closely related to the idea or concept that it is hard to separate expression from the idea. It makes good sense, bearing in mind what copyright is concerned with is original expression, to require a much greater degree of exactitude in copying in such cases to reach the conclusion that a substantial part of the plaintiff's work has been taken. If the law was otherwise, there would be a real risk of copyright protecting ideas, principles and facts, as opposed to the original expression of ideas, principle and facts.

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212 AEIC of Dr Shi Xu, p 24.



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125 For these reasons, I have come to the view that, aside from the drawings named Senser Clamp and Pulley 1, the plaintiff has not established that the Semivac Drawings reproduce a substantial part of the alleged equivalent drawings of the plaintiff.

126 Indeed, I note the plaintiff goes on to assert that even if the drawings are not identical, the confidential information or concepts behind the plaintiff's technical drawings have been misappropriated by the 1st and 2nd defendants.[213] The response, however, must be that even if this is so, copyright is not concerned with protecting confidential information or concepts as such. Indeed, it is worth underscoring that copyright is not about protecting technology as such. In the case of author's works (literary, dramatic, musical and artistic works), copyright's concern is original authorial expression: see, for example, *Catnic Components Limited and another v Hill Smith Limited* [1982] RPC 183 ("*Catnic*") where the court rejected the claim for copyright infringement in a drawing for a steel lintel since only the idea had been taken. The fact that the plaintiff's design for steel box girder lintel was novel and a product of effort and labour was of no avail, since only the idea was taken: *Catnic* at 223, and see also *Politechnika Ipari Szovetkezet and others v Dallas Print Transfers Ltd* [1982] FSR 529 and extra-judicial discussion in George Wei, *Law of Copyright in Singapore* (Singapore National Printers, 2nd Ed, 2000) at para 8.38.

127 To be sure, there are areas where copyright does overlap with confidentiality, such as copyright protection for unpublished works and information technology (*eg*, copyright protection for computer programs). Nevertheless, even in these areas the law takes care to limit protection to expression, as opposed to underlying ideas, facts, principles and concepts.

213 Dr Shi Xu AEIC at [57].



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Whilst the individual intellectual and industrial property rights are not hermetically sealed systems and do have areas of overlap, the pre-eminent intellectual/industrial property rights for inventions and industrial design are of course the law of patents and the law of registered designs. The problems with overly expansive interpretations of copyright, with its very long terms of protection, in comparison with the far shorter terms of protection (and stricter conditions for application) provided by registered design law and patent law, are well known and indeed lie behind the complex provisions in Division 10 of Part III of the Copyright Act, which serve to limit copyright's role in protecting industrial design and technology.

128 On the basis of the evidence, and bearing in mind the principles on infringement, it follows that, even without considering any defences, the plaintiff's case on copyright infringement and its pre-existing technical drawings, by and large, has failed. Leaving aside the drawings for Senser Clamp and Pulley 1, the plaintiff has not established that the Semivac Drawings reproduce a substantial part of the equivalent drawings of the plaintiff.

129 Further, whilst the plaintiff has made out a case for copyright infringement and the drawings named Senser Clamp and Pulley 1, nothing turns on this as I am of the view that, in any event, the defendants are entitled to rely on the useful article defence.

(2) The useful article defence and the plaintiff's pre-existing technical drawings

130 Counsel for the defendants submits that the defence of industrial application, under s 70(1) of the Copyright Act (the useful article defence) applies to negate any infringement of copyright.[214]



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131 Section 70(1) of the Copyright Act states:

> Despite section 69, the making of any useful article in 3 dimensions (including a reproduction in 2 dimensions reasonably required for the making of the article), or of any non-physical product, does not infringe the copyright in an artistic work if, when the useful article, reproduction or non-physical product is made, the artistic work has been applied industrially in Singapore or in any other country at any time before the useful article, reproduction or non-physical product is made.

132 The useful article defence has been amended a number of times since the enactment of the Copyright Act in 1987. In its original form, the defence only applied 15 years after the first industrial application of the artistic work. The purpose behind the 15-year requirement was to match the period of term of protection allowed under the Registered Designs Act (Cap 266) ("Registered Designs Act"): see the extrajudicial discussion in George Wei, *Industrial Design Law in Singapore* (Academy Publishing, 2012) at para 3.140. The useful article defence was strengthened in 2000 by the Registered Designs Act 2000 (Act 25 of 2000). Once the artistic work has been applied industrially to make a useful article anywhere in the world, the defence applies immediately.

133 In order for the defence to apply, it is necessary to show that the artistic work has been applied industrially. An artistic work is applied industrially if "more than 50 reproductions in 3 dimensions are made of it, for the purposes of sale or hire": s 70(2)(*a*) of the Copyright Act. "Useful article" means "an article having an intrinsic utilitarian function that is not merely to portray the appearance of the article or to convey information": s 70(4) of the Copyright Act. It also includes an article that is normally part of a useful article: s 70(5) of the Copyright Act.

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[214] Defendants' Closing Submissions, [36(a)].



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134 The plaintiff's witness, Dr Wei Hao, stated during cross-examination that more than 50 FCVA machines were made and sold by the plaintiff.[215] Dr Shi Xu gave evidence that, of the plaintiff's pre-existing technical drawings which were allegedly adapted into the Semivac Drawings and produced before this court, only 12 related to FCVA technology – this included the drawings named Sensor Plate and Timing Pulley.[216] On this basis, it appears that these 12 technical drawings (artistic works) have been industrially applied. It follows that s 70(1) of the Copyright Act applies to cover any copyright infringement in these 12 technical drawings.

135 In so far as the plaintiff's pre-existing technical drawings are concerned, s 70(1) of the Copyright Act is only relevant to the drawings named Sensor Plate and Timing Pulley, which were infringed by the Semivac Drawings called Senser Clamp and Pulley 1. This is given the earlier finding that the other 15 Semivac Drawings did not reproduce a substantial part of the plaintiff's alleged equivalent drawings.

136 The useful article defence, as noted earlier, extends to cover the making of any useful article in three-dimensions (including a reproduction in two-dimensions reasonably required for the making of the article). It is, of course, a question of fact whether the making of a two-dimensional reproduction is protected on the ground that it is reasonably required for the making of the article. For example, if a photocopy of a technical drawing is made so that members of the fabrication team can assist in producing the useful article, there is no doubt that the two-dimensional reproduction (the photocopy) is reasonably required for the making of the article.

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215 Certified Transcript for 23 October 2017, p 84, lines 1-8.

216 AEIC of Dr Shi Xu, pp 22-24.



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137 But, what about reproduction of the technical drawing for inclusion in a textbook on principles of design engineering? This is an interesting question, but of course, not one that needs to be answered in the present case. The point, however, is that the scope of what is permitted by s 70 is something not to be glossed over. In the present case, even if the defendants never actually made the component parts according to the Semivac Drawings, it is clear that copies were made for the purpose of obtaining quotations from potential third party suppliers.[217] These copies would be two-dimensional reproductions (photocopies) of the Semivac Drawings which are, in turn, in the case of the Semivac Drawings named Senser Clamp and Pulley 1, copies of the relevant technical drawings of the plaintiff, which have been industrially applied.

138 After due consideration, I am of the view that the defendants have succeeded in the useful article defence in the case of the Senser Clamp and Pulley 1 drawings. The making of a photocopy for the purpose of obtaining a quotation from a third-party manufacturer/supplier is the making of a copy that is reasonably required for making the useful article.

139 What remains is the position of the other 46 Semivac Drawings, which will be discussed below.

*Infringement and the Semivac Drawings*

(1) Were the copyrights in the Semivac Drawings infringed?

140 Given my finding that most of the Semivac Drawings do not reproduce substantial parts of the plaintiff's pre-existing technical drawings, it is necessary to consider whether the 1st defendant has infringed the copyrights in the

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217 Certified Transcript for 26 October 2017, p 99, lines 18-23 and p 100, lines 17-20.



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Semivac Drawings (bearing in mind my earlier finding that the plaintiff is the owner of the copyrights in the Semivac Drawings). For the avoidance of doubt, I note again that there is no challenge by the defendants to the originality of the Semivac drawings. That said, based on my finding that the Semivac Drawings called Senser Clamp and Pulley 1 were direct/slavish copies of pre-existing drawings, I find that these two drawings lack originality and are not protected by copyright.

141 In the present case, there is scant evidence that the defendants have actually used the Semivac Drawings to fabricate DCVA machines, whether for use or sale in Singapore or elsewhere. Reference has already been made to the evidence that the 1st defendant is connected with Naisense, a Chinese company which appears to be interested in FCVA/DCVA technology. But even if companies in China are using the Semivac Drawings to make FCVA/DCVA machines in China for sale to customers in China or internationally, there is no evidence at all that the defendants have fabricated the component parts and/or built the machines in Singapore. If the claim is against the defendants for infringing copyright by making three-dimensional reproductions in Singapore, it will be necessary to show that the infringements have indeed taken place in Singapore.

142 That said, as noted above, I find that there is sufficient evidence of at least two-dimensional reproduction of the technical drawings in Singapore. During cross-examination, the 3rd defendant agreed that a hardcopy of the technical drawings would be made after the 2nd defendant created them,[218] for the purposes of obtaining a quotation from suppliers.[219] It follows that the

[218] Certified Transcript for 26 October 2017, p 99, lines 18-23.

[219] Certified Transcript for 26 October 2017, p 100, lines 17-20.



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plaintiff would succeed in its claim for copyright infringement over the Semivac Drawings (asides from the Semivac Drawings named Senser Clamp and Pulley 1, which have already been considered above), unless a defence, such as the useful article defence, applies, and it is to this that I now turn.

(2) The useful article defence and the Semivac Drawings

143 It will be recalled that the evidence as to whether the 1st defendant has made a complete machine and if so, where and how many machines, is very thin. Whilst there is some evidence that the 1st defendant ordered parts to be made in accordance to the Semivac Drawings,[220] there is no evidence as to how many were actually made. In short, there is no evidence to establish whether the Semivac Drawings (asides from the Semivac Drawings named Senser Clamp and Pulley 1, which have already been considered above) have been industrially applied by the making of more than 50 reproductions in three-dimensions. Indeed, even if some parts were made in accordance with the Semivac Drawings, it appears that this was done for the purposes of the 1st defendant and not the plaintiff. This is important because, save for the Semivac Drawings named Senser Clamp and Pulley 1, it appears (at least from the evidence before the Court) that the Semivac Drawings, as artistic works, are not slavish copies of any earlier technical drawing of the plaintiff. Whilst the plaintiff may have industrially applied its own technical drawings, it does not appear that the plaintiff has industrially applied the Semivac Drawings (asides from the Semivac Drawings named Senser Claim and Pulley 1, which have already been considered above).

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220 Certified Transcript for 26 October 2017, p 100, lines 10-13.



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144 For these reasons, I find that the Plaintiff succeeds in its claim to copyright over the Semivac Drawings (asides from the Semivac Drawings named Senser Clamp and Pulley 1). I also find that the 1st defendant has infringed the copyrights, at the very least, by reproducing the Semivac Drawings for quotation purposes.

145 For completeness, I note that there is no claim made by the defendants to any other potential defence such as (i) the non-expert defence under s 69 of the Copyright Act; (ii) designs registered or registrable under the Registered Designs Act under s 74 of the Copyright Act; (iii) the common law spare parts defence based on implied licence and/or non-derogation from grant; and (iv) abandonment of copyright in materials included in patent specifications for a granted patent (see *Catnic*). I note also that no point was raised by the parties concerning any potential overlap between artistic and literary copyright in technical design drawings.

**The claim against the 2nd defendant for breach of contract**

146 On the second claim, counsel for the plaintiff submits that the 2nd defendant was bound by the following contractual terms: (i) by virtue of cl 10 of his employment contract, a duty not to disclose confidential information relating to the plaintiff;[221] (ii) by virtue of cl 12 of his employment contract, a duty not to engage in any other business;[222] and (iii) by virtue of an implied term, a duty of fidelity and good faith.[223]

147 Clause 10 of the 2nd defendant's employment contract states:[224]

221 Plaintiff's Closing Submissions, p 22.

222 Plaintiff's Closing Submissions, p 20.

223 Plaintiff's Closing Submissions, p 23.



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> During the continuance of your employment with the [plaintiff] and at all times after the termination of your employment from any cause whatsoever, you shall not directly or indirectly disclose, divulge, authorize or permit to deliver to any person / organization not properly entitled there to any trade secrets, know-how, any confidential information and other matters relating to the [plaintiff].

148 Clause 12 of the 2nd defendant's employment contract states:[225]

> You shall not at any time during your service with the [plaintiff] either directly or indirectly (without prior written consent from the [plaintiff]) engage or interest yourself, whether for reward or gratuitously, in any work or business other than that relating to your duties in the [plaintiff]
>
> You shall devote the whole of your time, knowledge, skill and attention in the performance of your duties in the [plaintiff] and attend at the premises where you shall from time to time be posted by the [plaintiff] on such days including, if the exigencies of the work so require, on Sundays and public holidays and at such hours as may be required.

149 Finally, I note that in its statement of claim, the plaintiff further alleged a breach of a supplemental agreement dated 13 June 2013 and an updated employment contract dated 6 January 2016.[226] However, seeing as counsel for the plaintiff did not pursue these points in its closing submissions, I will not make a determination on them. In any case, for reasons that will become apparent, nothing turns on this point.

150 The plaintiff avers that the 2nd defendant breached his employment contract by the following acts:[227]

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224 Agreed Bundle of Documents, vol 1, p 24.

225 Agreed Bundle of Documents, vol 1, p 25.

226 Statement of Claim (Amendment No 2), [23].

227 Statement of Claim (Amendment No 2), [24].



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(a) becoming a director of the 1st defendant from 6 October 2008 until 11 January 2016, whilst in the employment of the plaintiff;

(b) copying confidential technical drawing files belonging to the plaintiff, for the use of the 1st defendant;

(c) preparing drawings for the 1st defendant whilst still an employee of the plaintiff; and

(d) making a false declaration on 11 January 2016 and thereby withholding disclosure of his directorship in the 1st defendant.

151 It is to be noted that whilst the 2nd defendant pleaded that he did not admit to the various instances of breach of the employment contract,[228] the 2nd defendant subsequently admitted in closing submissions to breaching his employment contract by working for the 1st defendant[229] and copying files for the 1st defendant's use.[230]

152 It is trite that there is an implied term that an employee is under a duty to serve his employer with good faith and fidelity: *Man Financial (S) Pte Ltd (formerly known as E D & F Man International (S) Pte Ltd) v Wong Bark Chuan David* [2008] 1 SLR(R) 663 at [193].

153 Ordinarily, one aspect of this duty is that the employee must not make use of the employer's property for his own purposes: Ravi Chandran, *Employment Law in Singapore* (LexisNexis, 4th Ed, 2014) ("*Employment Law in Singapore*") at para 5.17. Employees should not be engaged in other business

228 Defence (Amendment No 3), [16].

229 Defendants' Closing Submissions, [85].

230 Defendants' Closing Submissions, [97].



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or employment during office hours, unless approved by their employers: *Asiawerks Global Investment Group Pte Ltd v Ismail bin Syed Ahmad and another* [2004] 1 SLR(R) 234 at [61].

154 Indeed, it cannot be assumed that an employee is always contractually free to engage in other employment after office hours or on his/her days off. Depending on the circumstances, an employee who "moonlights" may be in breach of his duty of fidelity such as where his "second job" (albeit outside of office hours) is for a competitor or another business wherein there is a real risk that confidential information of the employer may be disclosed or misused whether by accident or design: see *Hivac Ltd v Park Royal Scientific Instruments Ltd* [1946] 1 Ch 169 at 172–174; see also Andrew Stafford and Stuart Ritchie, *Fiduciary Duties, Directors and Employees* (Jordans Publishing Limited, 2nd Ed, 2015) at para 4.50, that the fact the work is done during spare time is not decisive. This may be especially true where there is a "whole time" clause in the contract, as in the present case. I have no doubt that the 2nd defendant, by engaging in design work for the 1st defendant – even if the work was done after hours, breached the duty of fidelity on the facts before me.

155 In any case, cll 10 and 12 of the 2nd defendant's employment contract with the plaintiff expressly provided that the 2nd defendant was not to engage in any other business or divulge any confidential information.

156 Whilst the 2nd defendant asserts that some of the work done for the 1st defendant was undertaken on his off-days,[231] it is clear that he also did work during his normal working hours for the 1st defendant.[232] Further, whilst the 1st

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231 Certified Transcript for 25 October 2017, p 26, line 24 – p 27, line 4.

232 Certified Transcript for 25 October 2017, p 24 – p 27, line 4 and Defendants' Closing



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defendant may not be interested in the exact same type of FCVA machine as the plaintiff, there is no doubt at all that there is an overlap in the interests of the plaintiff and the 1st defendant. Additionally, this is not a case where the 2nd defendant was engaged on a part-time basis. He was a high ranking, full-time employee,[233] who was specially provided with a laptop to assist him in carrying out his work.[234] The evidence is clear that whilst the 2nd defendant would ordinarily use the office desktop computer to do his work,[235] he was provided with a laptop because he needed to go on overseas trips from time to time, in connection with the plaintiff's business.[236] The 2nd defendant was also given special access to the plaintiff's technical drawings, which were otherwise stored in an internal server and only accessible by the mechanical design team.[237] The 2nd defendant, as the head of the design team, was allowed to copy the technical drawings without any restrictions, and in fact had a full set of the plaintiff's technical drawings on his laptop, for use on overseas trips.[238] Other members of the mechanical design team were not allowed to make such copies of the plaintiff's technical drawings, and their Universal Serial Bus ports were disabled to prevent any such copying.[239] As will be explained later, I have found that these technical drawings of the plaintiff constitute confidential information.

157 I thus find that the 2nd defendant has breached his employment contract

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Submissions, [43].

233 Statement of Claim (Amendment No 2), [3].

234 Certified Transcript for 23 October 2017, p 113, lines 3-6.

235 Certified Transcript for 25 October 2017, p 86, lines 8-11.

236 Certified Transcript for 23 October 2017, p 113, lines 3-6.

237 AEIC of Dr Shi Xu, [24]-[25].

238 AEIC of Dr Shi Xu, [24]-[25].

239 AEIC of Dr Shi Xu, [24]-[25].



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with the plaintiff.

**The claim against the 1st and 2nd defendants for breach of confidence**

158 On the third claim, the plaintiff avers that the 1st and 2nd defendants breached their duty of confidence owed to the plaintiff. Counsel for the plaintiff submits that the 2nd defendant owed the plaintiff a duty of confidence by virtue of cl 10 of the 2nd defendant's employment contract, as set out above. The 2nd defendant is alleged to have breached this duty of confidence by modifying the plaintiff's confidential drawings for the benefit of the 1st defendant.[240]

159 Part of the difficulty in the present case is that there is some lack of clarity over just what is the plaintiff's claim in respect of the misuse of confidential information. In the plaintiff's Statement of Claim (Amendment No 2), it is pleaded at [27] that the 2nd defendant, by taking softcopies of the plaintiff's confidential technical drawings (*which were marked confidential*) and *modifying them* and passing them on to the 1st defendant, breached his duty of confidentiality to the plaintiff. The particulars of the confidential technical drawings are then pleaded as the Semivac Drawings.[241] However – and herein lies the lack of clarity – it is the plaintiff's pre-existing technical drawings which are marked as confidential,[242] not the Semivac Drawings.[243] Further, it appears, from its closing submissions, that the plaintiff's case is that it was the *pre-existing technical drawings* which were modified by the 2nd defendant and then passed on to the 1st defendant,[244] not the Semivac Drawings. In light of this, I

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240 Statement of Claim (Amendment No 2), [27].

241 Statement of Claim (Amendment No 2), [27(i)].

242 See AEIC of Dr Shi Xu, p 94, 96, 98.

243 See AEIC of Dr Shi Xu, p 93, 95, 97.

244 Statement of Claim (Amendment No 2), [24(ii)]. See also Plaintiff's Closing



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will proceed on the basis that the plaintiff's claim in respect of the misuse of confidential information relates to its pre-existing technical drawings.

160 As for the 1st defendant, the plaintiff's case is that equity imposed a duty of confidence on the 1st defendant as it was the indirect recipient of the plaintiff's confidential drawings and knew of their confidential nature.[245] The 1st defendant is alleged to have breached its duty of confidence by making use of the confidential drawings.[246]

161 The defendants admit that four of the Semivac Drawings were created using the plaintiff's pre-existing files, the four Semivac Drawings being Pulley 1, Senser Clamp, Senser Frame and Senser Frame 2.[247] Nevertheless, the defendants claim that there was no breach of confidence since the drawings are not confidential information.[248] Indeed, the defendants' argument in response to the plaintiff's claim for breach of confidence is that the technical drawings relate to third parties' components and are thus not confidential information.[249]

162 The basic principles of the law on confidence are well-established and set out in numerous Singapore cases including *PH Hydraulics & Engineering Pte Ltd v Intrepid Offshore Construction Pte Ltd and another* [2012] 4 SLR 36 ("*PH Hydraulics*"), *Invenpro (M) Sdn Bhd v JCS Automation Pte Ltd and another* [2014] 2 SLR 1045, *Clearlab SG Pte Ltd v Ting Chong Chai and others*

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Submissions, p 22.

245 Statement of Claim (Amendment No 2), [28].

246 Statement of Claim (Amendment No 2), [28].

247 Defendants' Closing Submissions, [45].

248 Defendants' Closing Submissions, [84].

249 Defendants' Closing Submissions, [84].



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[2015] 1 SLR 163 and *Adinop Co Ltd v Rovithai Ltd and another* [2018] SGHC 129 ("*Adinop")*.

163 It is not necessary in this case to examine the principles in detail. It is enough to say that there are three elements which have to be proven in an action for breach of confidence: (i) the information must possess the necessary quality of confidentiality; (ii) the information must have been imparted or received in circumstances such as to give rise to an obligation of confidentiality; and (iii) there must be unauthorised use and detriment to the plaintiff.

164 The only points that I will underscore before turning to the decision are as follows. First, the essence of information being confidential is that it is not freely available in the public domain: *PH Hydraulics* at [46]. Information can possess the quality of confidentiality even though some or many of the component parts are in the public domain. Proper identification of the information that is said to be confidential is critical. The burden is on the plaintiff to identify the information said to be confidential. It stands to reason that overly expansive claims will be scrutinised carefully by the judicial eye. The plaintiff must be able to define or explain what he asserts is confidential with sufficient clarity and certainty, such that any reasonable person will understand what it is that protection is being claimed over. Furthermore, whilst it is often said that information as a whole can be confidential even though some or all of the individual elements are in the public domain, it cannot be assumed that in all cases the totality of the information will fall outside the public domain, given the different ways in which individual components may combine and interact. The totality or combination may well be confidential but the plaintiff should be able to explain why that is so.



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165 Second, the fact that the documents are clearly marked "confidential", whilst helpful, does not mean that the contents must be regarded as confidential: see *Adinop* at [73] and *Sports Direct International Plc v Rangers International Football Club Plc* [2016] EWHC 85 (Ch). In the latter case, Peter Smith J stated at [25] that just "because the parties label matters as being confidential does not necessarily make it so. The principles of confidentiality are more restrictive than that." This court agrees and adds that even if the employee enters into a contract where there is an express term that certain information is to be treated as confidential and not free for the employee to use even post-termination, it does not follow that the term will always be contractually valid or enforceable, such as where the provision operates in restraint of trade.

166 Turning now to the case at hand, I find that the plaintiff's technical drawings do possess the necessary quality of confidentiality. First, the technical drawings were labelled as confidential,[250] and employees were "constantly reminded of the confidentiality of these drawings".[251] Second, security measures were put in place to prevent the dissemination of the technical drawings. As stated earlier, the technical drawings were stored in an internal server, and only certain individuals had access to the server.[252] Even then, none of the employees, except for the 2nd defendant, were allowed or able to make copies of the files without receiving authorisation.[253]

167 It will be recalled that when the issue of copyright infringement in the plaintiff's pre-existing technical drawings was being considered, I noted that

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250 AEIC of Dr Shi Xu, pp 94, 96, and 117.

251 AEIC of Dr Shi Xu, [24].

252 AEIC of Dr Shi Xu, [24]-[25].

253 AEIC of Dr Shi Xu, [24]-[25].



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there were many instances where only the concepts set out in the plaintiff's and 2nd defendant's drawings are similar. Copyright does not protect concepts or methods as such. The law of confidence does, so long as the concept or principle is shown to be confidential.

168 The defendants' case appears to be that the plaintiff's technical drawings (including the four technical drawings which the 2nd defendant admits to copying/modifying) are not confidential simply because they relate to components which third parties have access to.

169 This argument does not assist the defendants. In the first place, the mere fact that a component is accessible to third parties does not mean that a technical drawing of the component is not confidential information. See, for example, *PH Hydraulics*. The 2nd defendant in *PH Hydraulics* was a former employee of the plaintiff. During the course of his employment, the 2nd defendant was involved in the authorship of five general arrangement drawings of winches. The 2nd defendant later resigned from the plaintiff and joined the 1st defendant. The plaintiff subsequently found that the 1st defendant had published catalogues featuring five general arrangement drawings of winches similar to the plaintiff's. The plaintiff thus sued the defendants for, *inter alia*, breach of confidence in relation to the five general arrangement drawings. The court in *PH Hydraulics* allowed the claim for breach of confidence in relation to the *general arrangement drawings of the winches*, despite the fact that the *winches* were accessible to third parties, such as the plaintiff's customers, for whom the drawings were made.

170 Ultimately, each case must be decided on its own facts. In some cases, where the component is very simple, it may be that the very fact the component



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is publicly available means that the technical drawings are also in the public domain, in the sense that no effort over and above the most routine simple measurement is necessary to produce the technical design drawing. But in other cases, where the component or part is complicated and has internal structures or cavities, *etc*, the mere fact that the component can be bought off the shelf does not mean that the information that is the technical design drawing is also in the public domain. That information may still be relatively inaccessible to the public at large and will require some amount of effort and reverse engineering to produce a set of design drawings.

171 The evidence in this case suggests that the defendants were aware that technical drawings of components would be confidential information, even if the actual fabricated components were accessible to third parties. The 3rd defendant stated that, in providing maintenance services for customers, the 1st defendant would typically create its own technical drawings for the relevant components,[254] as the OEM's technical drawings of the component would be "their property".[255]

172 Taking this evidence at face value, the 1st defendant is acknowledging that if it is necessary during maintenance servicing to replace a component, they would create their own technical drawings for the part since the OEM's technical drawings of the component would not be freely available. Whilst this is not conclusive, it tends to support the plaintiff's case that the technical design drawings were still confidential as effort and time would be needed to create them by reverse engineering.

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254 AEIC of Hu Lang, [12].

255 Certified Transcript for 26 October 2017, p 96, line 18.



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173 I pause to note that the 3rd defendant did state that the 1st defendant would sometimes request their customers for the OEM's technical drawings for the components.[256] The evidence was that where the component is "complicated", he would request for the technical drawings of the components from their customers, and copy the technical drawings.[257] The 3rd defendant made it clear that the 1st defendant would not simply photocopy the technical drawings.[258] Instead, he would draw a copy of the technical drawings from scratch, based on the technical drawings provided by the customer.[259] The reason given for this somewhat odd procedure is the 1st defendant "cannot directly use [the OEM's] drawing to do things … because it is their property".[260]

174 In any case, this does not address the plaintiff's claim that the technical drawings it produced for the component parts are confidential as there is nothing to suggest that the plaintiff simply acquired technical design drawings from component manufacturers for its own use. On the contrary, as noted above, it appears that in some cases the plaintiff "reverse engineered" technical drawings for components obtained by third parties – in fact, this was part of the 2nd defendant's job scope at the plaintiff.[261] Further, it appears unlikely that even if members of the public (including a skilled reader) could view the plaintiff's machine in operation, the totality of the component parts and their working relationship would thereby be readily available to the public.

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256 AEIC of Hu Lang, [12(c)].

257 AEIC of Hu Lang, [12(c)].

258 Certified Transcript for 26 October 2017, p 93, lines 6-14.

259 Certified Transcript for 26 October 2017, p 93, lines 6-14.

260 Certified Transcript for 26 October 2017, p 96, lines 16-18.

261 AEIC of Xu Yibo, [8], AEIC of Hu Lang, [6].



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175 The second element of an action for breach of confidence is also satisfied. The 2nd defendant was under a contractual obligation of confidence by virtue of cl 10 of his employment agreement. As for the 3rd defendant, I have no doubt that he knew or had reasonable grounds for being aware that the provenance of the Semivac Drawings was the confidential technical drawings of the plaintiff. It will be recalled that the 3rd defendant worked for the plaintiff for eight years as first senior process engineer,[262] and then senior manager of after-sales technical support.[263] The 2nd and 3rd defendants were colleagues at the plaintiff and the 2nd defendant became involved with the 1st defendant at an early stage.[264] It is clear that the 3rd defendant and, more importantly, the 1st defendant, are also caught by an obligation of confidence.

176 The next question to consider is whether the 1st and 2nd defendants breached their duty of confidence to the plaintiff. I find that the 2nd defendant did breach his duty of confidence, at the very least, by passing the four confidential technical drawings to the 3rd and 1st defendant. Likewise, the 1st defendant's use of the technical drawings (for example, to create technical drawings for its customers) is a breach of its obligation of confidence.

**The claim against the 3rd defendant for inducing breach of contract**

177 On the last claim, the plaintiff alleges that the 3rd defendant induced the 2nd defendant to breach his contract with the plaintiff. The plaintiff avers that the 3rd defendant knew of the 2nd defendant's obligations as they were colleagues, and the 3rd defendant was aware of the terms in his own contract which would be similar to the 2nd defendant's.[265] The 3rd defendant is said to

262 Statement of Claim (Amendment No 2), [4].

263 AEIC of Hu Lang, [4].

264 AEIC of Xu Yibo, [9].



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have induced the 2nd defendant's breaches by asking the 2nd defendant to form the 1st defendant with him,[266] countenancing the 2nd defendant's appointment as director at the 1st defendant, [267] and having the 2nd defendant create the Semivac Drawings.[268]

178 In response, the 3rd defendant argues that there is no evidence that he knew of the terms of the 2nd defendant's employment contract with the plaintiff.[269] He further argues that there is no evidence that he induced the 2nd defendant to breach his contract with the plaintiff, or that he intended as such.[270]

179 In order to establish a claim for inducing a breach of contract, the plaintiff must prove three elements: *M+W Singapore Pte Ltd v Leow Tet Sin and another* [2015] 2 SLR 271 ("*M+W*") at [88]. First, that the 3rd defendant knew of the contract and intended for it to be breached. Second, that the 3rd defendant induced the breach. Third, that the contract was breached and damage was suffered. The breach of contract must be intended either as a means to an end or an end in itself; it is not enough for a defendant to merely foresee that his acts or omissions could lead to a breach of contract: *M+W* at [90]–[91].

180 Whilst the general principles of the tort are well-established, I note that it is not necessary to prove that the defendant had actual knowledge of the contract. It is sufficient if the existence of the contract is obvious or may

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265 Statement of Claim (Amendment No 2), [32] and Plaintiff's Closing Submissions, pp 27-28.

266 Statement of Claim (Amendment No 2), [31].

267 Statement of Claim (Amendment No 2), [33].

268 Statement of Claim (Amendment No 2), [33].

269 Defendants' Closing Submissions, [108].

270 Defendants' Closing Submissions, [106]-[107].



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reasonably be inferred from the surrounding circumstances. Indeed, it is not necessary to show that the defendant has knowledge of precise terms of the contract: see Gary Chan Kok Yew, *The Law of Torts in Singapore* (Academy Publishing, 2nd Ed, 2016) ("*The Law of Torts in Singapore*") at para 15.007.

181 I further note that it is established law that there is no requirement of proof of malice in order to establish an intention to cause the breach of contract. Once it is shown that the defendant intended the breach, it matters not if the breach is an end in itself or simply the means to an end. It makes no difference if the defendant says that his preference would have been to reach those ends with inducing any breach. But if the breach was not intended (whether as an end in itself or as a means to an end) but was simply an unintended but foreseeable consequence, the requirement of intention is not satisfied: see *Law of Torts in Singapore* at para 15.008, citing Lord Hoffmann in *OBG Ltd and another v Allan and others* [2008] 1 AC 1 at [42]–[43].

182 Looking at the evidence as a whole, I find that the 3rd defendant did induce the 2nd defendant to breach his contract with the plaintiff.

183 On the first element, the 3rd defendant admitted under cross-examination that he knew of the 2nd defendant's obligation of confidentiality to the plaintiff.[271] Whilst the 3rd defendant did not specifically admit that he knew of the 2nd defendant's obligation not to be engaged in any other businesses I find that he must have been aware of the 2nd defendant's obligation not to be engaged in any other businesses. The 3rd defendant's contract with the plaintiff provided for such an obligation,[272] and the 2nd and 3rd defendants

271 Certified Transcript for 26 October 2017, p 82, lines 11-14.

272 Agreed Bundle of Documents, vol 1, p 43, cl 3.10a.



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would have been under similar contractual obligations as they were colleagues at the plaintiff, with the 2nd defendant joining just three months after the 3rd defendant.[273] I thus find that the 3rd defendant knew of the 2nd defendant's contractual obligations not to disclose confidential information and not to be engaged in any other businesses.

184 I further find that the 3rd defendant intended for the 2nd defendant to breach his contract with the plaintiff. As will be explained, I find that it was the 3rd defendant who spearheaded the establishment and operation of the 1st defendant. The breach of the 2nd defendant's contract with the plaintiff was a means to the end of setting up and running the 1st defendant.

185 On the second element, I find that the 3rd defendant induced the 2nd defendant to breach his obligation not to be engaged in any other businesses.

186 The parties disagree as to how the 1st defendant was established. The plaintiff alleges that the 3rd defendant asked the 2nd defendant to form the 1st defendant with him.[274] The defendants allege that the 2nd and 3rd defendants *jointly* decided to set up the 1st defendant.[275] I first note that the defendants' allegation of a joint initiative was not pleaded,[276] and has the appearance of being an afterthought.

187 In any event, I am inclined to believe the plaintiff's version of events. First, it is clear that the 1st defendant is run by the 3rd defendant. At the time when the 3rd defendant left the plaintiff, he was employed as senior manager of

273 AEIC of Dr Shi Xu, [13] and [16].

274 Plaintiff's Closing Submissions, p 28.

275 Defendants' Closing Submissions, [106].

276 Certified Transcript for 26 October 2017, p 127, lines 2-6.



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after-sales technical support.[277] The business of the 1st defendant according to a business profile search is "General Wholesale Trade."[278] That said, it is clear from the evidence as a whole that the 1st defendant was in fact interested in DCVA machines and/or the business of servicing and repair of such machines. Any interest in the after-sales service market by the 1st defendant after his departure from the plaintiff is not surprising, given his experience as senior manager of after-sales technical support at the plaintiff. I have no doubt after hearing the evidence and the witnesses, that the 3rd defendant was and is very much the driving force of the 1st defendant and that in all likelihood he approached the 2nd defendant and persuaded him to "join" the 1st defendant, knowing that this would result in breach of contract.

188 On the other hand, the 2nd defendant appears to have little or no knowledge of how the 1st defendant operates. Amongst other things, he does not know the names of its customers,[279] the number of employees it has,[280] or who its company secretary is.[281] The 3rd defendant also admitted that he ran the 1st defendant.[282] Tellingly, the shareholding in the 1st defendant is heavily skewed towards the 3rd defendant. When the 1st defendant was formed, 17,000 of its shares were allotted to the 3rd defendant, and 3,000 shares were allotted to the 2nd defendant's wife,[283] who played no role in the operations of the 1st defendant.[284] In these circumstances, I infer that the idea to set up the 1st

277 AEIC of Hu Lang, [4].

278 AEIC of Hu Lang, [10].

279 Certified Transcript for 25 October, p 39, lines 6-14.

280 Certified Transcript for 25 October, p 23, lines 3-5.

281 Certified Transcript for 25 October, p 84, lines 3-4.

282 Certified Transcript for 26 October 2017, p 85, lines 13-14.

283 AEIC of Hu Lang, [10].



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defendant was the 3rd defendant's, who invited the 2nd defendant to come on board. I thus find that the evidence strongly supports the drawing of the inference that the 3rd defendant, through words and conduct (the invitation to join him followed by the instructions to produce technical drawings of component parts, *etc*), induced and procured the breach of contract.

189 On the third element, as stated above, the 2nd defendant's contract with the plaintiff was breached. The 3rd defendant is accordingly liable for inducing the 2nd defendant to breach his contract with the plaintiff.

**Conclusion on liability**

190 To summarise the main points on the issues of liability, I have found (in brief) as follows:

(a) *The Semivac Slides*. The 1st defendant infringed the plaintiff's copyrights by reproducing the Works in the Semivac Slides.

(b) *Reproduction of the plaintiff's pre-existing technical drawings*.

(i) The plaintiff is entitled to copyright in the technical drawings made by its employees in the course of employment, whether the drawings were for parts meant exclusively for FCVA machines or otherwise.

(ii) To the extent that the Semivac Drawings were copied from earlier technical drawings of the Plaintiff, infringement will arise where a substantial part of the earlier technical drawing was taken.

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284 Certified Transcript for 25 October 2017, p 84, lines 19-23.



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(iii) It has not been established (save for two instances) that a substantial part of each of the plaintiff's technical drawings was reproduced into the equivalent Semivac Drawing.

(iv) The useful article defence set out in s 70 of the Copyright Act applies to the two instances, as I find that the two-dimensional copies were made in circumstances such that their making was reasonably required to make a useful article which has been industrially applied.

(c) *Reproduction of the Semivac Drawings.*

(i) The plaintiff is entitled to the copyrights in the Semivac Drawings.

(ii) The copyrights in the Semivac Drawings were infringed when the drawings were reproduced in quotation requests.

(iii) Whilst there is an assertion that component parts, *etc*, were made in accordance with the Semivac Drawings, there is no evidence as to how many pieces or parts were in fact made.

(iv) The useful article defence fails in respect of the Semivac Drawings (save for the two instances addressed above) as there is no evidence that 50 or more copies in three-dimensions were made.

(d) *Breach of contract*. I find the 2nd defendant breached his employment contract with the plaintiff by:

(i) Becoming a director of the 1st defendant whilst an employee of the plaintiff.



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(ii) Creating the Semivac Drawings whilst an employee of the plaintiff.

(iii) Copying confidential technical drawing files belonging to the plaintiff, for the use of the 1st defendant.

(e) *Breach of confidence*. The plaintiff has established that the technical design drawings created by its employees were confidential information that had been used by the 2nd defendant, without permission, to create the Semivac Drawings. The 2nd defendant is liable for breach of confidence. The 1st defendant (the company which acts through its directors and officers) is bound by an obligation of confidence as a "knowing" recipient of the confidential information in the form of the plaintiff's technical drawings.

(f) *Inducing breach of contract*. The 3rd defendant induced the 2nd defendant to breach his contract with the plaintiff.

**Remedies and relief**

191 I now turn to the question of remedies and relief.

***Against the 1st defendant for copyright infringement***

192 I start by examining the power to grant statutory damages under s 119(2)(*d*) of the Copyright Act as this forms a major part of the plaintiff's submissions.[285]

193 Section 119(2)(*d*) states:

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285 Plaintiff's Closing Submissions, [28] and [36].



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> Subject to the provisions of this Act, in any action for an infringement of copyright, the types of relief that the court may grant include the following:
>
> …
>
> (d) where the plaintiff has elected for an award of statutory damages … statutory damages of –
>
> > (i) not more than $10,000 for each work or subject-matter in respect of which the copyright has been infringed; but
> >
> > (ii) not more than $200,000 in the aggregate, unless the plaintiff proves that his actual loss from such infringement exceeds $200,000.

Section 119(5) sets out the relevant considerations as:

> (*a*) the nature and purpose of the infringing act, including whether the infringing act was of a commercial nature or otherwise;
>
> (*b*) the flagrancy of the infringement;
>
> (*c*) whether the defendant acted in bad faith;
>
> (*d*) any loss that the plaintiff has suffered or is likely to suffer by reason of the infringement;
>
> (*e*) any benefit shown to have accrued to the defendant by reason of the infringement;
>
> (*f*) the conduct of the parties before and during the proceedings;
>
> (*g*) the need to deter other similar infringements; and
>
> (*h*) all other relevant matters.

194 Counsel for the plaintiff submits that, as against the 1st defendant, the present case is similar to *PH Hydraulics*,[286] the facts of which have been set out above. The court in *PH Hydraulics* held that the defendants infringed the plaintiff's copyrights in the five general arrangement drawings,[287] and ordered

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286 Plaintiff's Closing Submissions, [31] and [33].

287 *PH Hydraulics*, [29].



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statutory damages of $5,000 per drawing.[288] In reaching its decision, the court observed at [86] that:[289]

> the nature and purpose of the defendants' infringing acts were commercial and were done with the intent of gearing themselves up as a potential competitor of the plaintiff … Secondly, the infringement was flagrant as the second defendant's story of finding the drawings incidentally … could not be true. The defendants also made efforts to hide the fact of their acts of copying for instance by simply changing the respective names of the … drawings. Little or no regret was expressed … Thirdly, it was clear that the defendants did benefit from being spared the expense of time and effort in preparing and doing the [drawings] … I acknowledge the need to deter such infringements …

*The Semivac Slides*

195 The plaintiff has succeeded in its claim for infringement in respect of the Semivac Slides. The Semivac Slides comprise one diagram, nine photographs and two graphs (*ie*, 12 works *in toto*). The evidence is that the Semivac Slides were used in a presentation to a potential customer in Thailand.[290] It does not appear that they were used in any other presentation – there is no evidence on this point.

196 Bearing in mind that these 12 works are not technical or manufacturing drawings and that the Semivac Slides were used only for presentation purposes, I am of the view that sums awarded as statutory damages in *PH Hydraulics* ($5,000 per work) are not appropriate.

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288 *PH Hydraulics*, [87].

289 *PH Hydraulics*, [86].

290 AEIC of Dr Wei Hao, [9].



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197 Nevertheless, a nominal award is not appropriate either, since the Semivac Slides were produced and used for commercial purposes. In my judgment, the appropriate award is $1,000 per work, or $12,000 in total.

198 In addition, an injunction is granted against the continued use of the Works. The defendants are to deliver up and forfeit the items in issue (the Semivac Slides) or to file and serve an affidavit affirming the destruction and/or deletion of the items within 14 days from the date of my decision.

*The Semivac Drawings*

199 I agree with counsel for the plaintiff's submission that the nature and purpose of the defendants' acts in relation to the Semivac Drawings were commercial. I find that the businesses of the plaintiff and the 1st defendant overlap, at least to a certain extent, and that the purpose of the infringements were to gear the 1st defendant up as a potential competitor of the plaintiff, albeit perhaps not a direct competitor.

200 Secondly, the defendants similarly made efforts to hide their infringements by deleting the relevant files[291] and, in the case of the four Semivac Drawings modified from the plaintiff's pre-existing technical drawings, removing the plaintiff's "watermarks".[292]

201 Thirdly, the defendants benefitted from being spared the time and effort needed to prepare the Works and, at the very least, the four Semivac Drawings admitted to be based off the plaintiff's pre-existing technical drawings.

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291 AEIC of Dr Shi Xu, [47].

292 AEIC of Dr Shi Xu, compare pp 93-96, 115-117.



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202 Fourthly, the conduct of the defendants during the proceedings was unco-operative, to say the least. During discovery, the defendants initially disclosed 49 Semivac Drawings in their list of documents, mirroring the plaintiff's statement of claim.[293] However, the plaintiff later informed the defendants that there was a repetition error in its statement of claim, which actually only included 48 discrete Semivac Drawings. The defendants then filed a second list of documents, with only 48 Semivac Drawings, despite earlier affirming that there were 49 Technical Drawings. The defendants thus appeared to only disclose Technical Drawings which the plaintiff was already aware of. Further, at trial, it emerged that based on the serial numbers of the Technical Drawings, there was a possibility of undisclosed Semivac Drawings,[294] which the 3rd defendant confirmed.[295] Additionally, some of the positions taken by the defendants during the trial were untenable. The 2nd defendant alleged that he did not pass softcopies of the Semivac Drawings to the 1st defendant.[296] Instead, he maintained that he followed a strange procedure of creating the Semivac Drawings in soft-copies, printing out a hard-copy to pass to the 3rd defendant, and then deleting the soft-copy.[297] This was contradicted outright by the 3rd defendant, who stated that the 2nd defendant would store the soft-copies.[298]

203 Fifthly, there is a need to deter similar infringements, especially given that this case involves a trusted employee; as noted earlier, the 2nd defendant

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293 Plaintiff's Closing Submissions, [3].

294 Certified Transcript for 25 October 2017, p 72, lines 10-18.

295 Certified Transcript for 26 October 2017, p 126, lines 7-10.

296 Certified Transcript for 25 October 2017, p 31, line 20 – p 33, line 13.

297 Certified Transcript for 25 October 2017, p 31, line 20 – p 33, line 13.

298 Certified Transcript for 26 October 2017, p 101, line 20 – p 102, line 1.



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was given special access to the plaintiff's technical drawings, amongst other things.

204 Lastly, I note that this case involves a much larger scale of infringements, compared to *PH Hydraulics* – there were 46 infringements in this case, as opposed to five in *PH Hydraulics*.

205 I thus award the sum of $120,000 as damages for the copyright infringements in the 46 Semivac Drawings.

206 I also grant the plaintiff an injunction against further use of the Semivac Drawings. The defendants are to deliver up and forfeit the items (the Semivac Drawings) in issue or to file and serve an affidavit affirming the destruction and/or deletion of the items within 14 days from the date of my decision.

***Against the 1st and 2nd defendants for breach of confidence***

207 As for the 1st and 2nd defendant's breach of confidence, the plaintiff submits that the remedy for this claim could be subsumed under the statutory damages awarded for the copyright infringements,[299] as in *PH Hydraulics* at [91]. As the breach of confidence claim involves the same technical drawings, I agree that equitable compensation for this claim should be subsumed in such a manner. I note that the copyright infringement claims are only against the 1st defendant, whilst the breach of confidence claim is against both the 1st defendant and the 2nd defendant. Subsuming the equitable compensation for the breach of confidence claim under the statutory damages for copyright infringement effectively means that no compensatory remedy will be ordered against the 2nd defendant. Nonetheless, considering that the plaintiff has chosen

[299] Plaintiff's Closing Submissions, [36].



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to proceed on this basis, and that it would not be unfair for the 1st defendant to bear damages for copyright infringement in full as that claim was pleaded solely against him, I find that it is still appropriate to subsume the remedy for breach of confidence under the damages awarded for copyright infringement.

208 In addition, I grant an injunction against the continued use of the plaintiff's pre-existing technical drawings. The defendants are to deliver up and forfeit the items in issue (the plaintiff's pre-existing technical drawings) or to file and serve an affidavit affirming the destruction and/or deletion of the items within 14 days from the date of my decision.

***Against the 2nd defendant for breach of contract***

209 The plaintiff, in its closing submissions, asserts that the primary remedy sought for the breach of contract is damages.[300] This is immediately followed by the submission that by reason of his breach, the 2nd defendant has derived additional income by way of directors' fees,[301] which ought to be disgorged.[302] The evidence as to what directors' fees the 2nd defendant received is thin. The 2nd defendant stated that he "received about 10,000-odd dollars in [his] first and second year as a director" but did not receive any further sums subsequently.[303] There is no evidence as to whether he received any other sums for the drafting/design work that he carried out. I do, however, note that the 2nd defendant's wife was given 3,000 shares in the 1st defendant,[304] but there is no evidence at all as to the value of those shares.

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300 Plaintiff's Closing Submissions, [39].

301 Plaintiff's Closing Submissions, [39].

302 Plaintiff's Closing Submissions, [40].

303 Certified Transcript for 25 October 2017, p 75, line 25 – p 76, line 5.

304 AEIC of Hu Lang, [10].



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210 With respect, a claim for damages and disgorgement for the same breach may be misconceived. If, by "disgorgement", the plaintiff means an account of profits, the first problem is that the plaintiff cannot seek damages and an account of profits for the same breach. Indeed, I note that in its Statement of Claim (Amendment No 2), the plaintiff does not even pray for an account of profits against the 2nd defendant for breach of contract. To be sure, the breach of contract that the plaintiff is concerned with involves the claim that the 2nd defendant breached his employment contract by becoming a director of the 1st defendant and preparing the Semivac Drawings for the 1st defendant on the instructions of the 3rd defendant. All that is prayed for is an award of damages for breach of contract.[305]

211 The second problem is that the remedy of account of profits, as an equitable remedy, is not ordinarily available in actions for breach of contract. The position is, of course, different where there has been a breach of a fiduciary duty: *Teh Guek Ngor Engelin née Tan and others v Chia Ee Lin Evelyn and another* [2005] 3 SLR(R) 22 ("*Engelin Teh*") at [17], or some other equitable obligation. Further, an account of profits (disgorgement of gains) may also be available in limited circumstances for breach of contractual obligations, as held by Choo Han Teck J for the Court of Appeal in *Engelin Teh*, citing *A-G v Blake.*

212 Where the breach of contract concerns misuse of confidential information, the remedy of an account of profits (as an alternative to damages for loss) is more readily understandable, given the close connection between contractual and equitable obligations of confidence. This is especially so where the contract breaker is in the position of a fiduciary. Indeed, I note that the development of the modern law of confidential obligations has much to do with

305 Statement of Claim (Amendment No 2), p 13.



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the equitable principles of trust, confidence and good faith. Given the connection between the claim against the 2nd defendant for breach of contract and the misuse of confidential information by the 1st and 2nd defendants, I am of the view that it is not appropriate to order the 2nd defendant to disgorge his directors' fees. This is because the plaintiff accepts and submits that the claim for damages for breach of confidence is best subsumed under the award of statutory damages for copyright infringement.[306]

***Against the 3rd defendant for inducing breach of contract***

213 As against the 3rd defendant, the only relief prayed for is damages for inducing breach of contract.[307] In this connection, the plaintiff, citing John Murphy, *Street on Torts* (Oxford University Press, 12th Ed, 2007) at page 373, submits that higher damages can, in appropriate cases, be recovered in respect of this tort than in an action against the contract breaker.[308] See, for example, the old case of *Gunter v Astor* (1819) 4 Moore CP 12 ("*Gunter*"). In *Gunter*, the plaintiff, a manufacturer of piano-fortes, brought a claim against the defendants for enticing his workmen away from his service, to the defendants' service.[309] The defendants had invited the workmen to a dinner, where they proposed taking the workmen away from the plaintiff at "advanced wages", and "induced them to sign an agreement to that effect".[310] Two years' loss of profits was awarded by the jury,[311] even though it was submitted that as against the workmen, the plaintiff would only be able to claim the value of half a day's

306 Plaintiff's Closing Submissions, [36].

307 Statement of Claim (Amendment No 2), p 14.

308 Plaintiff's Closing Submissions, [42].

309 *Gunter*, p 12.

310 *Gunter*, p 12-13.

311 *Gunter*, p 13.



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labour, being the labour that the workmen failed to perform, due to the dinner.[312] It should be noted that the workmen were not hired by the plaintiff for a limited or constant period, but worked by the piece. Lord Chief Justice Dallas stated that the defendants' actions caused the plaintiff to be "nearly, if not absolutely ruined", and thus held that he was "by no means dissatisfied with the verdict the Jury ha[d] found".[313] Damages are assessed as at the date of the breach and not the date of the contract. Further, it has been held that any damage which the defendant intended to cause is recoverable: see, for example, *Lumley v Gye* (1853) 2 E&B 216.

214 In short, the damages recoverable include all intended damages as well as damages that are not too remote at the time of breach: *The Law of Torts in Singapore* at para 15.021. As an intentional tort, the tortfeasor is liable, in principle, for all the direct consequences of the tort: see *Smith New Court Securities Ltd v Citibank NA* [1997] AC 254 at 279–280, endorsed in *Wishing Star Ltd v Jurong Town Corp* [2008] 2 SLR(R) 909 at [21]–[24]. Indeed, given the inherent difficulties in establishing specific items of loss, it is not necessary to prove particular damage to succeed. Instead, as *The Law of Torts in Singapore* states at para 15.021, "damage may be inferred from the circumstances if the breach were of such nature as would in the ordinary course of events inflict injury on the innocent party" (in a similar vein, see Hazel Carty, *An Analysis of the Economic Torts* (Oxford University Press, 2nd Ed, 2010) at page 44).

215 In this case, the plaintiff seeks damages from the 3rd defendant for inducing the 2nd defendant's breach of contract. The breach that was induced

312 *Gunter*, p 14.

313 *Gunter*, p 14.



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was long lasting, in that the 2nd defendant was a director of and carried out work for the 1st defendant for many years, at the request of the 3rd defendant.

216 There is, however, no evidence of specific loss caused to the plaintiff. Whilst it is understandable that, given the nature of the tort and the circumstances in which it was in fact committed, it will be hard for the plaintiff to itemise all the losses caused, it is a little troubling that the plaintiff has not been able to provide a single instance of harm caused.

217 In reaching my decision, I take account of the following:

(a) The 2nd and 3rd defendants are not joint tortfeasors as such, *vis-à-vis* the tort of inducing breach of contract.

(b) The causes of action against the 2nd and 3rd defendants are separate and distinct.

(c) The claim against the 2nd defendant for breach of contract speaks to the losses (or, exceptionally, gains) caused by the breach. The claim for inducing breach of contract against the 3rd defendant speaks to the damage caused to the plaintiff by the interference with his economic interests and the contract (the employment of the 2nd defendant, the legitimate expectations the plaintiff had in respect of the duties of fidelity, confidentiality and the losses caused to the plaintiff as a result of the inducement of the breach). The interests are not the same, although there is of course overlap: see, for example, *Lightly v Clouston* (1808) 127 ER 744 where the plaintiff, whose apprentice was wrongly acquired by the defendant, was entitled to claim the labour of his apprentice against the defendant.



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218 In the present case, whilst I accept that that the plaintiff has established that some loss and damage is likely to have been caused by the 3rd defendant's tort of inducing breach of contract, this is not a case where the court is able to find any basis for an assessment of the scale of that loss. In these circumstances, the court makes a nominal award of $15,000 as damages against the 3rd defendant.

219 I note the plaintiff also submits that damages for this tort can include an award for injured feelings.[314] I am not satisfied that this is an appropriate case to take account of "injured feelings", even assuming that such damages can be awarded for this tort and to a corporate entity.

**Conclusion**

220 For the above reasons, I grant the following relief:

(a) In respect of the claims in copyright infringement and breach of confidence, I order the 1st defendant to pay a total of $132,000 in damages to the plaintiff.

(b) Further, I grant an injunction against the defendants' continued use of the Semivac Drawings, the Semivac Slides and the plaintiff's pre-existing drawings. I order the defendants to deliver up and forfeit all copies of these items, or to file and serve an affidavit affirming the destruction and/or deletion of the items within 14 days from the date of my decision.

(c) In respect of the claim for inducement of breach of contract, I order the 3rd defendant to pay the plaintiff $15,000 as nominal damages.

314 Plaintiff's Closing Submissions, p 38.



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221 The plaintiff is entitled to the costs of these proceedings which are to be agreed or taxed. The plaintiff is entitled to the usual interest rate of 5.33% *per annum*.

George Wei
Judge

Jevon Louis and Paul Teo (Ravindran Associates) for the plaintiff;
Rajendran Kanthosamy, Subash Rengasamy and Sri Balan s/o Krishnan (Relianze Law Corporation) for the defendants.



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**Annex A**

| Item | Plaintiff's slides | Semivac Slides |
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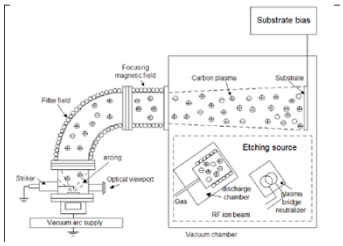
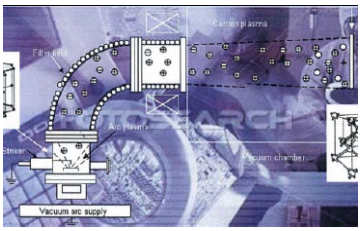
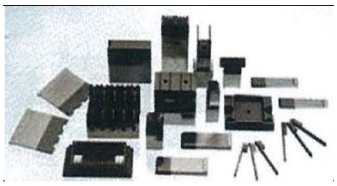
| Diagram |  |  |
| Photo 1 | |  |
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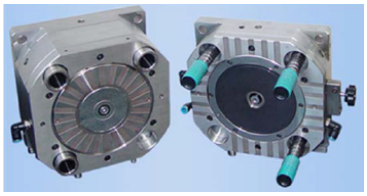
| Photo 3 |  | |



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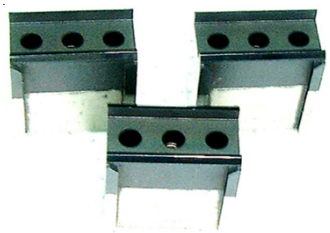
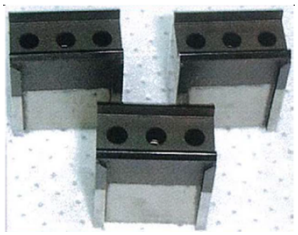
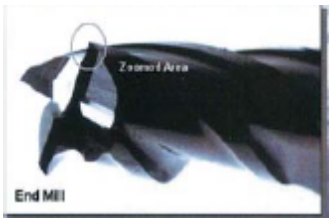
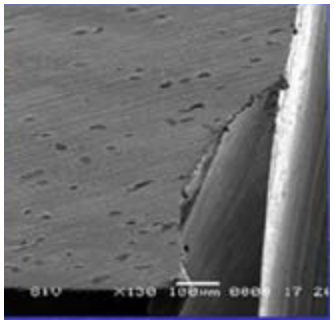
| Photo 5 |  |  |
| Photo 6 | |  |
| Photo 7 |  | |



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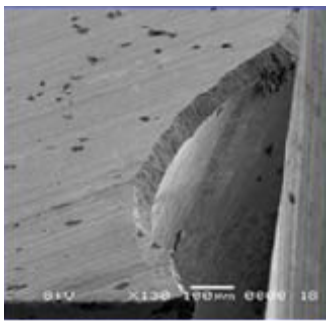
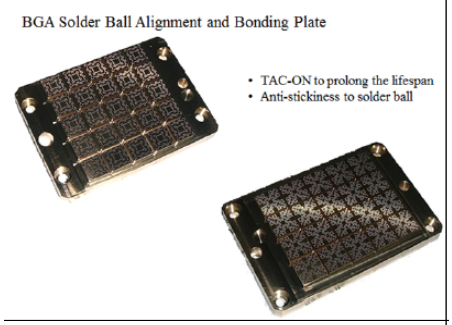
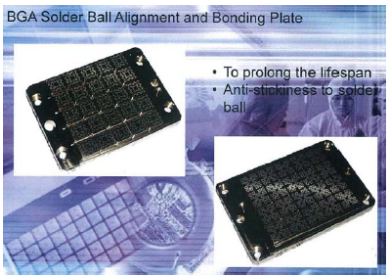
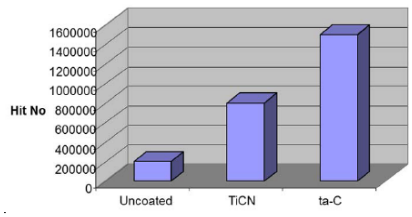
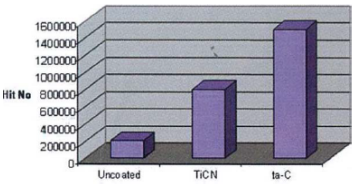
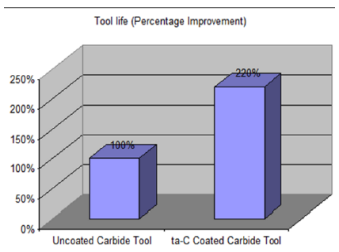
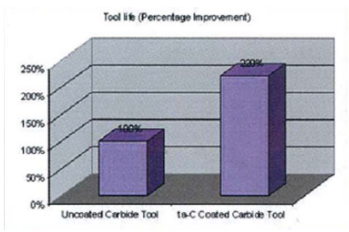
| Photo 8 |  | |
| Photo 9 |  |  |
| Graph 1 |  |  |
| Graph 2 |  |  |



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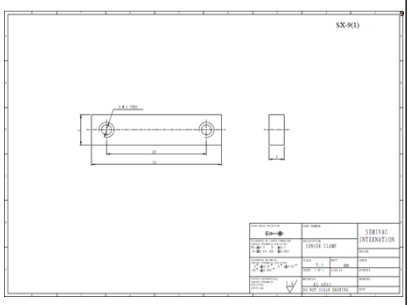
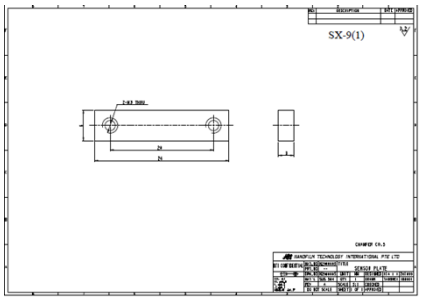
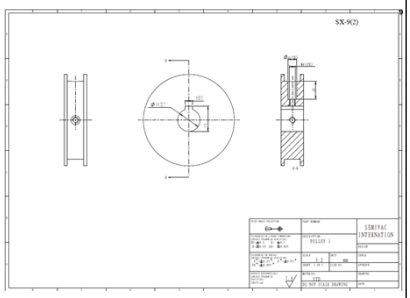
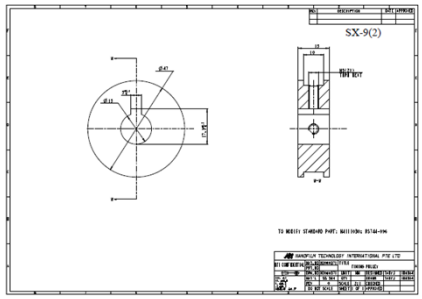
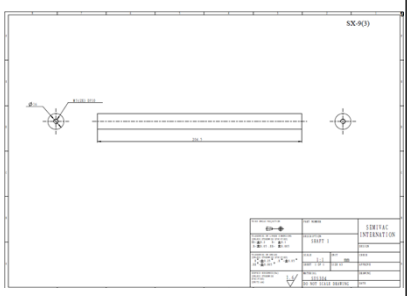
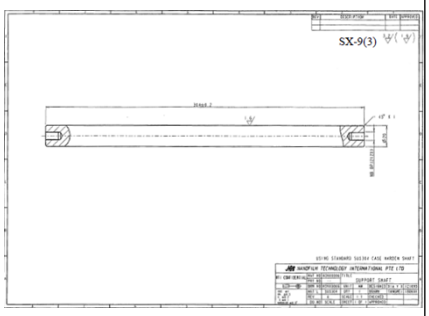
**Annex B**

| Item | Semivac Drawing | Plaintiff's alleged equivalent |
|---|---|---|
| Senser Clamp |  |  |
| Pulley 1 |  |  |
| Shaft 1 |  |  |



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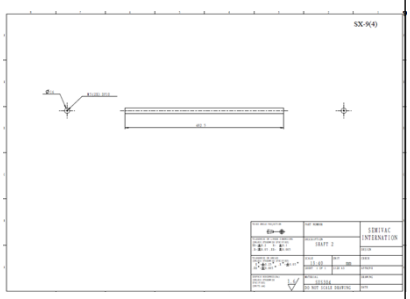
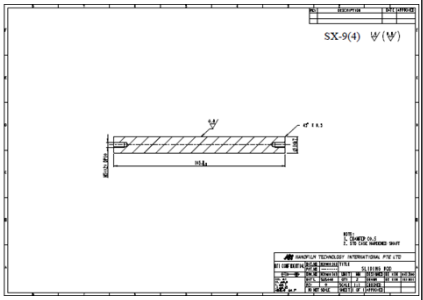
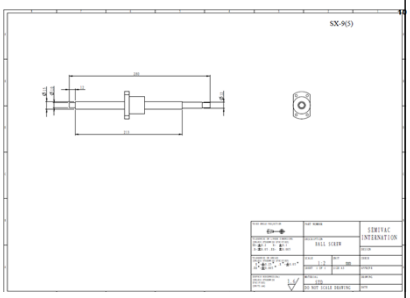
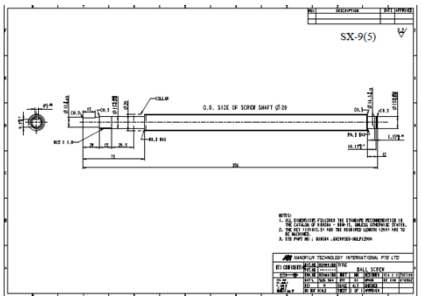
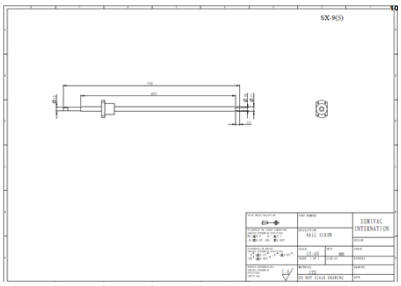
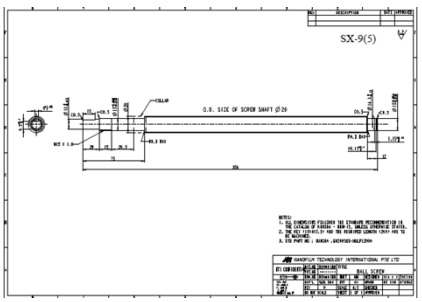
| Item | Semivac Drawing | Plaintiff's alleged equivalent |
|---|---|---|
| Shaft 2 |  |  |
| Ball-Screw (L=280) |  |  |
| Ball-Screw (L=550) |  |  |



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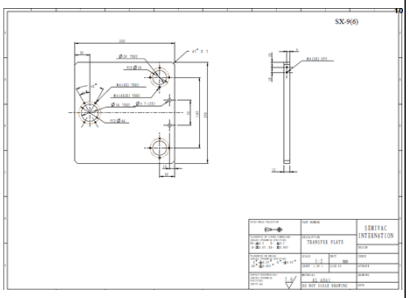
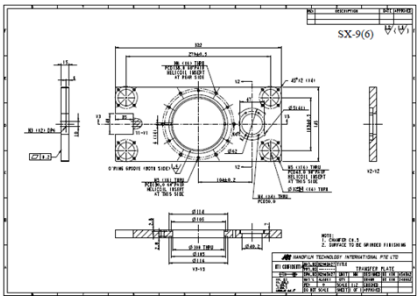
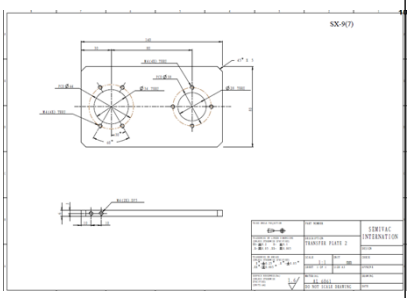
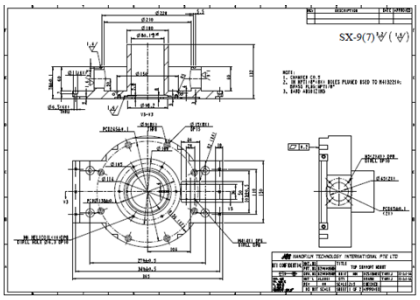
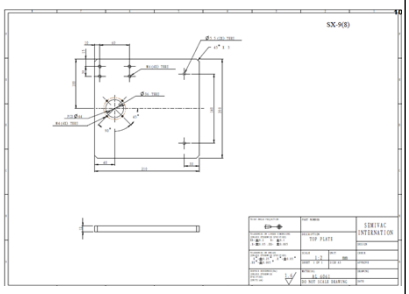
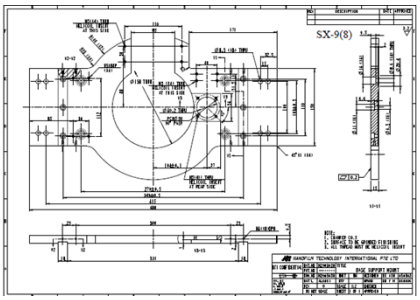
| Item | Semivac Drawing | Plaintiff's alleged equivalent |
|---|---|---|
| Transfer Plate |  |  |
| Transfer Plate 2 |  |  |
| Top Plate |  |  |



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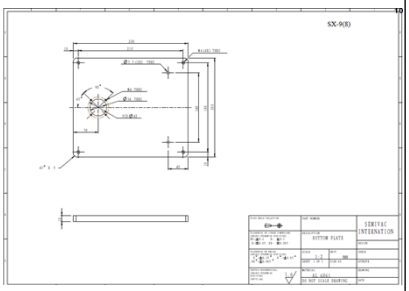
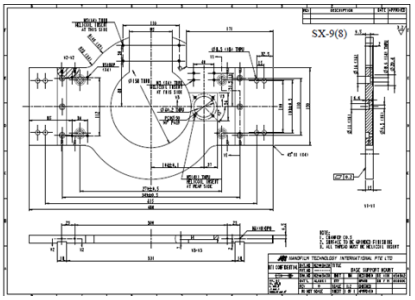
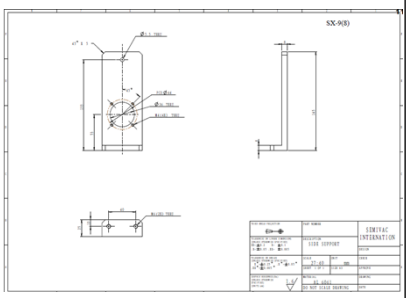
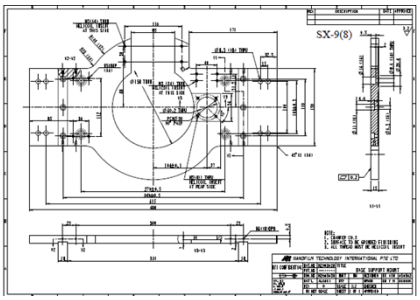
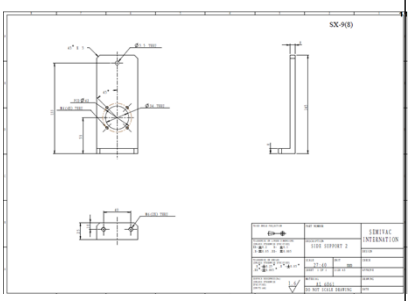
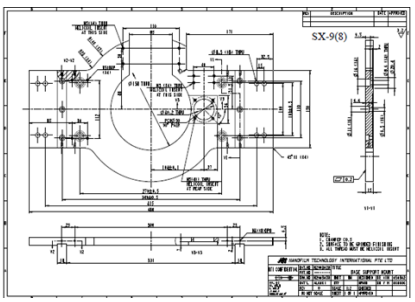
| Item | Semivac Drawing | Plaintiff's alleged equivalent |
|---|---|---|
| Bottom Plate |  |  |
| Side Support |  |  |
| Side Support 2 |  |  |



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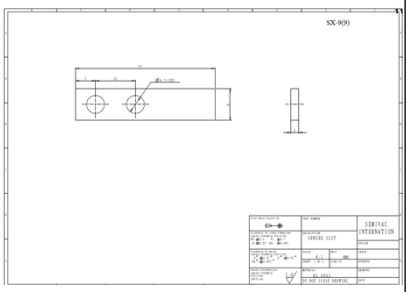
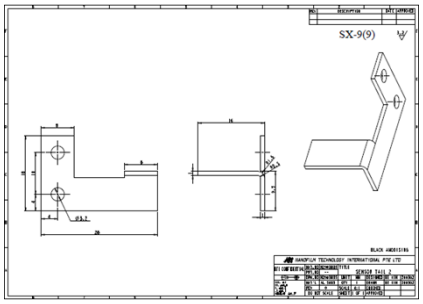
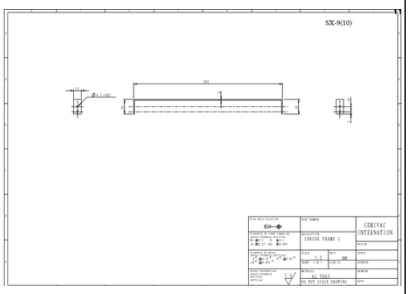
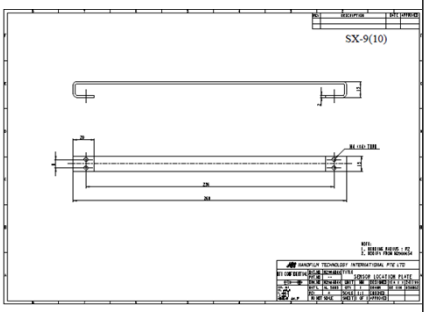
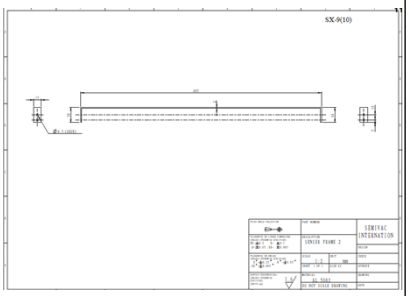
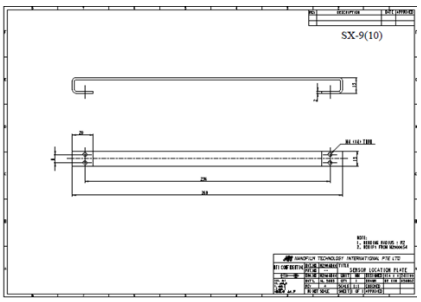
| Item | Semivac Drawing | Plaintiff's alleged equivalent |
|---|---|---|
| Senser Slit |  |  |
| Senser Frame 1 |  |  |
| Senser Frame 2 |  |  |



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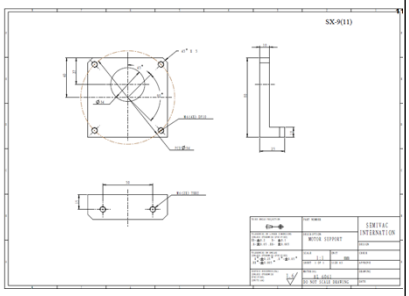
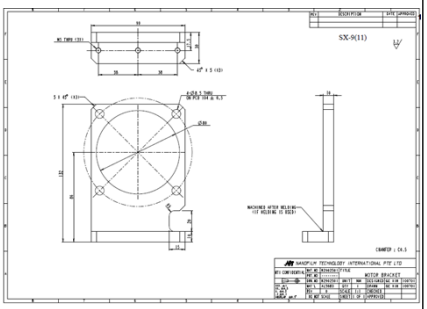
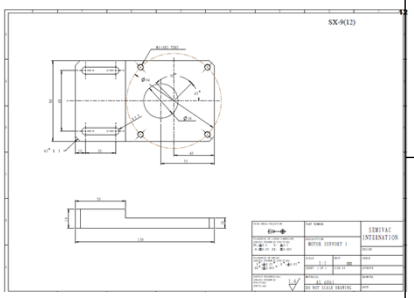
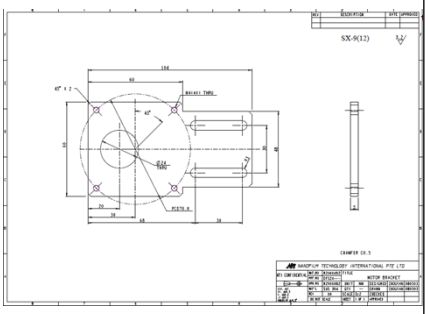
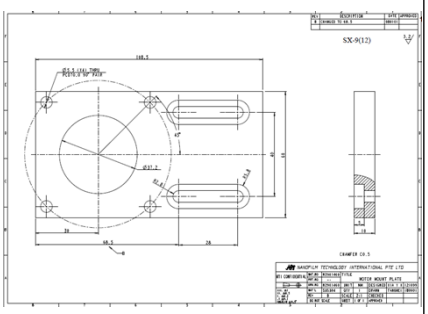
| Item | Semivac Drawing | Plaintiff's alleged equivalent |
|---|---|---|
| Motor Support |  |  |
| Motor Support 1 |  |  <br>  |



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